

## REVISION OF AUSTRALIAN LEPIDOPTERA.

BY E. MEYRICK, B.A., F.E.S.

### I.

In the present paper I have classified and described the species of five families of the *Macro-Lepidoptera*, my object being to present them in such a form as might afford a ready means to their identification and study. These five families—*Sesiadae*; *Arctiadae*, including the genera usually ranked as *Arctiadae* and *Lithosiadae*; *Hypsiadae*, including *Hypsa*, *Nyctemera*, and allies; *Syntomididae*; *Zygenidae*;—are presented as separately defined groups; and I propose to omit for the present all question of the relation of these groups to one another, or of their comprehension under higher groups. Such descriptions of older authors as still remain unidentified I have included in the form of an appendix at the end of the whole, for convenience of reference; but in some instances identification seems impossible; until identified, they are not to be regarded as distinct species. In the present instance I have also included the four species which alone represent these groups in New Zealand, as they are allied to Australian forms, and may be advantageously considered with them. The information as to localities and habits is necessarily very meagre, and I hope that it may now be supplemented.

I am greatly indebted to Mr. Macleay, Dr. Lucas, and other esteemed correspondents, for the means of examining and describing many new species from their collections; these will be found acknowledged in their proper place. Without them my paper would have been very imperfect, for I paid little attention to these groups until lately, and now regret many past opportunities.

I call attention to the fact that, according to the results of the present paper, the following generic names do not represent

genera, and are to be laid aside ; some of them are in vague general use among certain writers : viz., *Argina*, Hb. ; *Pitane* (second use), *Pallene*, *Lerna*, *Chisobara*, *Aquita*, *Uraba*, *Coesa*, *Pollanisus*, *Phaos*, and *Artrices*, Walk. ; *Diastrophia* and *Toxoloma*, Feld. ; *Nepita*, Moore ; *Xanthesthes*, Ramb.

## SESIADAE.

Ocelli present, large. Antennæ about  $\frac{3}{4}$ , thickened posteriorly, in ♂ swollen towards apex, ciliated. Maxillary palpi absent. Posterior tibiæ with spurs all present. Frenum developed. Forewings with 13 veins, 1 simple at base, 2 from near angle of cell, 7 and 8 stalked, 12 from upper margin of cell, 13 free. Hindwings with 1c present, 5 from about middle of transverse vein, 8 free. Larvæ 16-legged, feeding internally.

The family appears characteristic of the northern hemisphere, and barely reaches Australia, being only represented by stragglers of one genus.

### 1. SESIA, F.

Tongue well-developed. Antennæ thickened on terminal half, in ♂ rather abruptly swollen towards apex, strongly ciliated with fascicles except near apex, in both sexes with a small terminal fascicle. Palpi moderately long, arched, ascending, second joint shortly rough-scaled beneath, terminal joint rather long, cylindrical, tolerably pointed. Abdomen with large expansible anal tuft. Posterior tibiæ roughly haired above, spurs long. Forewings with vein 2 from near angle of cell, 7 and 8 stalked, 7 to apex, 12 from about middle of cell. Hindwings with veins 3 and 4 approximated at base or short-stalked, 6 absent, 7 from angle.

The larvæ feed in roots or shoots.

- A. Anal tuft wholly black .....3. *tipuliformis*.
- B. „ „ partly orange.
  - a. Abdomen black with three or four orange bands.....1. *isozona*.
  - b. Abdomen orange, base of segments black..2. *chrysophanes*.



1. *Ses. isozona*, n. sp.

♂ ♀. 21-22 mm. Head and palpi orange, crown bluish-black except at back. Antennæ blue-black, in ♀ orange in front on lower half. Thorax blue-black, a spot on each side and one behind orange. Abdomen blue-black, on undersurface in ♂ with six, in ♀ with five orange bands, first, third, fifth, and in ♂ sixth continued round upper surface also, anal tuft in ♂ black, apex orange, in ♀ orange, sides black. Legs blue-black, tibiæ with a median orange band. Forewings very narrow, elongate, gradually somewhat dilated, apex obtuse, hindmargin oblique, hardly rounded; colourless, transparent; a moderate black margin all round; a narrow black fascia on transverse vein, rather oblique inwards from costa, in ♀ narrowly interrupted with orange near inner margin; lower median vein from base to end of cell in ♂ black, in ♀ together with space between it and dorsal streak orange; apical half of posterior clear space in ♀ orange, in ♂ only a very small subapical orange spot, veins in posterior space wholly orange: cilia black. Hindwings elongate-ovate; colourless, transparent, with a narrow black margin, becoming orange towards base of inner margin; veins black; transverse vein marked by a narrow black bar obscurely edged with orange; cilia black, tips orange; veins 3 and 4 approximated at base.

Maryborough, Queensland; eight specimens (Australian Museum and Coll. Masters).

2. *Ses. chrysophanes*, n. sp.

♂ ♀ 18-20 mm. Differs from *S. isozona* only as follows: Antennæ in ♂ white above towards apex. Thorax blue-black, patagia and a posterior spot orange. Abdomen wholly orange, base of segments in ♀ narrowly, in ♂ broadly blue-black, anal tuft in ♂ black mixed with orange, sides orange, in ♀ orange, black on sides. Forewings with black margin narrower; base and a dorsal streak from base to  $\frac{2}{3}$  orange in ♀; black fascia slightly oblique outwards from costa; posterior clear space with veins black, apical half orange and anteriorly black-margined. Hindwings with black margin narrower, transverse vein without black bar.

Bowen, Queensland ; three specimens taken by Mr. A. Simson (Coll. Raynor and Masters).

3. *Ses. tipuliformis*, Cl.

♂. 18-19 mm. Differs from *S. isozona* only as follows : Head and thorax black, collar slenderly orange. Palpi black, longitudinally ochreous-yellow beneath. Abdomen black, with slender ochreous-yellow subbasal, median, and subapical rings. Forewings with apical half of posterior clear space very dull orange, anteriorly black-margined, veins black, posteriorly broad, no dorsal orange streak. Hindwings with small black triangular spot on upper half of transverse vein, no orange markings ; veins 3 and 4 stalked.

New Zealand, common in the South Island ; introduced from Europe with the garden currant (*Ribes*), in the shoots of which the larva feeds. It is almost certain to be found sooner or later in Tasmania, but I have not heard of its occurrence there as yet.

ARCTIADAE.

Ocelli present, conspicuous or partially concealed. Antennæ from  $\frac{1}{3}$  to  $\frac{2}{3}$  of forewings, not thickened. Maxillary palpi absent. Posterior tibiæ with all spurs present. Frenum developed. Forewings with 1 simple at base, 7 and 8 stalked. Hindwings with 1c absent, 6 and 7 approximated at base or stalked, 8 rising out of upper margin of cell, completely coincident with it towards base. Larvæ 16-legged, uniformly clothed with fascicles of long dense hairs.

Usually distributed into two families, *Arctiadae* and *Lithosiadae*; the only distinction asserted is in the presence or absence of ocelli, and is founded on error ; the ocelli are, so far as my material enables me to judge, always present, but variable in size, and tending during the development of the family to become smaller and closely appressed to the eye, so as to be partially concealed ; every degree is found, and some acknowledged *Lithosiadae* have them conspicuous enough ; the distinction is therefore imaginary, and I have included all in one family. The structure of vein 8 of

the hindwings is the most characteristic point, and affords a ready test for recognition. Of the genera here given *Deiopeia* is the most ancestral, and approaches nearly to the *Hypsiidae*, from which the *Arctiadae* appear to have been developed. One or two genera usually placed in this family, I class (according to the diagnosis given above) with the *Hypsiidae*.

The following is a tabulation of the Australian genera.

- |  |     |                        |
|--|-----|------------------------|
| 1. Forewings 6 absent .....                    | 24. | <i>Hestiarcha</i> .    |
| ,,     ,, present .....                        | 2.  |                        |
| 2. Forewings 9 absent (10 and 11 present)....  | 2.  | <i>Exotrocha</i> .     |
| ,,     ,, present .....                        | 3.  |                        |
| 3. Forewings 8 and 9 separate .....            | 4.  |                        |
| ,,     ,, stalked .....                        | 9.  |                        |
| 4. Forewings 9 and 10 separate .....           | 11. | <i>Heterallactis</i> . |
| ,,     ,, stalked .....                        | 5   |                        |
| 5. Antennæ in ♂ ciliated .....                 | 6.  |                        |
| ,,     ,, pectinated .....                     | 8.  |                        |
| 6. Hindwings 5 absent .....                    | 15. | <i>Parelictis</i> .    |
| ,,     ,, present .....                        | 7.  |                        |
| 7. Hindwings 8 from close before transverse    |     |                        |
| vein .....                                     | 22. | <i>Sceodora</i> .      |
| ,,     ,, before middle of cell .....          | 16. | <i>Termessa</i> .      |
| 8. Tongue well-developed .....                 | 17. | <i>Cluaca</i> .        |
| ,,     absent .....                            | 27. | <i>Anestia</i> .       |
| 9. Forewings 11 anastomosing with 12 .....     | 10. |                        |
| ,,     ,, separate .....                       | 17. |                        |
| 10. Antennæ in ♂ ciliated .....                | 11. |                        |
| ,,     ,, pectinated .....                     | 29. | <i>Asura</i> .         |
| 11. Hindwings 5 absent .....                   | 12. |                        |
| ,,     ,, present .....                        | 16. |                        |
| 12. Forewings 2 out of 3 .....                 | 6.  | <i>Palæxera</i> .      |
| ,,     ,, remote from 3 .....                  | 13. |                        |
| 13. Forewings 10 connected with 9 by bar ..... | 8.  | <i>Brunia</i> .        |
| ,,     ,, separate .....                       | 14. |                        |

14. Forewings in ♂ beneath with discal flap ... 7. *Teulisna*.  
     ,,     ,, without flap.....15.
15. Hindwings in ♂ with apex obliquely truncated ..... 4. *Scoliacma*.  
     ,,     ,, normal ... ..... 5. *Tigrioides*.
16. Hindwings 4 and 5 stalked or from point..12. *Calligenia*.  
     ,,     ,, remote .....10. *Symmetrodes*.
17. Hindwings 4 or 5 absent .....18.  
     ,, both present .....22.
18. Forewings 5 absent .....19.  
     ,,     ,, present.....20.
19. Forewings 10 connected with 9 by bar ... 3. *Calamidia*.  
     ,,     ,, separate .....14. *Neobrocha*.
20. Forewings 10 absent .....19. *Sorocostia*.  
     ,,     ,, present .....21.
21. Forewings 10 connected with 9 by bar ... 9. *Lithosia* (A).  
     ,,     ,, not     ,, .. .... 21. *Mosoda*.
22. Forewings 6 connected with 7 by bar .....13. *Hectobrocha*.  
     ,,     ,, not     ,, .....23.
23. Forewings 10 connected with 9 by bar .....9. *Lithosia* (B).  
     ,,     ,, not     ,, .....24.
24. Hindwings 3 and 4 stalked .....25.  
     ,,     ,, separate .....28.
25. Forewings 4 and 5 stalked .....23. *Chiriphe*.  
     ,,     ,, separate .....26.
26. Antennæ of ♂ pectinated.. ... .....20. *Nola*.  
     ,,     ,, ciliated .....27.
27. Forewings 10 out of 7 .....28. *Eutane*.  
     ,,     ,, separate .....18. *Zia*.
28. Antennæ of ♂ pectinated .....29.  
     ,,     ,, ciliated .....32.
29. Thorax densely hairy beneath .....30.  
     ,,     ,, smooth .....25. *Thallarcha*.

30. Tongue rudimentary .....31.  
 „ „ developed .....32. *Areas*.  
 31. Forewings 10 out of 9 .....31. *Spilosoma*.  
 „ „ rising separate.....30. *Metacrias*.  
 32. Hindwings 6 and 7 stalked .....26. *Comarchis*.  
 „ „ separate .....33. *Deiopeia*.

I remark again that in the following generic descriptions, according to my usual practice, the normal 12 veins of the forewings and 8 veins of the hindwings are understood to be all present and separate at origin, unless expressly indicated otherwise here or in the family diagnosis.

## 2. EXOTROCHA, n.g.

Tongue well-developed. Antennæ in ♂ filiform, moderately ciliated (1), with scattered longer single cilia. Palpi short, porrected, tolerably filiform. Forewings in ♂ beneath with round membranous excrescence beneath costa beyond middle; 2 from  $\frac{3}{4}$  of cell, 5 absent, 7 and 8 stalked, 9 absent, 10 and 11 distorted. Hindwings with veins 3 and 4 stalked, 5 parallel, 6 and 7 stalked, 8 from middle of cell.

The distortion caused by the subcostal excrescence makes the neuration of the forewings somewhat doubtful; the ♀ is required to obtain certainty.

## 4. *Ex. liboria*, Cr.

(*Noctua liboria*, Cr. 345 D.; *Lithosia liboria*, Feist., Mag. Zool. 1839, 8, pl. XXVI, 1.)

♂ 28-30 mm. Head and thorax red; palpi, antennæ, collar, and outer edge of patagia black. Abdomen orange, banded with black, with black hairs above towards base. Legs blackish. Forewings elongate, gradually dilated, costa almost straight, apex rounded, hindmargin somewhat oblique, rounded; dull orange-red; a narrow-blackish streak along costa from base to  $\frac{3}{4}$  and another along inner margin from base to beyond anal angle: cilia blackish. Hindwings black; a large irregular subcordate yellow spot in disc before middle, not reaching margins; cilia black.



Newcastle, New South Wales; two specimens (Australian Museum). Probably also occurs as an exotic, but recorded localities doubtful. Cramer's figure, if really this insect, is atrocious; however, Feisthamel's leaves no doubt.

### 3. CALAMIDIA, Butl.

Tongue well developed. Antennæ in ♂ filiform, moderately ciliated, with scattered much longer cilia. Palpi moderate or very long, ascending, with appressed scales, terminal joint rather short, cylindrical, or very long, subclavate. Thorax somewhat hairy beneath; abdomen clothed with long hairs above. Forewings with vein 2 from middle of cell, 5 absent, 6 from point with or out of 9 near base, 7 and 8 out of 9, 10 connected with 9 by a bar. Hindwings with veins 3 and 4 from a point, 5 absent, 6 and 7 approximated at base, 8 from before middle of cell.

It is questionable whether the two following are not sexes of the same species, but as I have seen very few specimens, I have no authority for uniting them in face of the great difference in palpi and colouring.

#### 5. *Cal. salpinctis*, n.sp.

♂. 41 mm. Head, palpi, antennæ, and thorax pale brownish-ochreous; palpi very long, slender, second joint long, terminal joint rather longer than second, subclavate, bent forward. Abdomen ochreous-yellow. Legs whitish-ochreous, anterior femora dark fuscous above. Forewings elongate, narrow at base, gradually dilated, costa strongly arched, apex obtuse, hindmargin obliquely rounded; whitish-ochreous, suffused with light fuscous except on an elongate-oval patch extending above inner margin from base to middle, beyond and beneath which the suffusion is much darker fuscous: cilia whitish-ochreous, fuscous-tinged. Hindwings and cilia ochreous-yellow.

Victoria; one specimen (Coll. Lucas).

#### 6. *Cal. hirta*, Walk.

(*Lithosia hirta*, Walk. Bomb. 510.)

♀. 42-45 mm. Head, palpi, antennæ, thorax, and legs whitish; palpi rather short, terminal joint short, somewhat pointed.

Abdomen pale ochreous-yellowish. Forewings elongate, narrow at base, gradually dilated, costa strongly arched, apex obtuse, hindmargin obliquely rounded; white, towards inner margin anteriorly and in disc posteriorly very faintly ochreous-tinged; cilia white. Hindwings and cilia pale ochreous-yellowish.

Sydney, New South Wales; three specimens (Coll. Masters and Macleay).

#### 4. *SCOLIACMA*, n.g.

Tongue well-developed. Antennæ in ♂ subserrate, moderately ciliated ( $1\frac{1}{2}$ ), with scattered longer cilia. Palpi short, porrected, with appressed or somewhat rough scales, terminal joint short, pointed. Forewings with vein 2 from beyond middle, 3 and 4 stalked or separate, 5 absent, 6 out of 7 near base or rising separate and connected with it near base (both forms in same species), 8 and 9 out of 7, 11 anastomosing with 12. Hindwings in ♂ with apex broadly obliquely truncate and subconcave, sometimes with costal fold or discal excrescence; 3 and 4 stalked or coincident, 5 absent, 6 and 7 stalked, 8 from near middle.

#### 7. *Scol. bicolor*, Boisd.

(*Lithosia bicolora*, Boisd., Voy. Astr. V, 211, pl. III, 9; *L. rubratra*, Tepper, Trans. Royal Soc. S. Austr. V, 30.)

♂ ♀. 29-35 mm. Head and collar crimson. Palpi, antennæ, thorax, abdomen, and legs blackish; outer edge of patagia, anal tuft, and posterior tibiæ light crimson. Forewings elongate, somewhat dilated, costa gently arched, apex obtuse, hindmargin obliquely rounded; veins 3 and 4 stalked; bright crimson, disc somewhat mixed with blackish; posterior<sup>2</sup> blackish except on an attenuated costal streak; cilia pale crimson. Hindwings light crimson; a broad blackish hindmarginal fascia, somewhat narrowed beneath; cilia pale crimson.

Glen Innes (3,000 feet), Newcastle, Sydney, and Bombala, New South Wales; Melbourne, Victoria; Mount Lofty, South Australia; and occurs in Tasmania; December; apparently never common. Boisduval's spelling of *bicolora* is an inadmissible solecism.

8. *Scol. orthotoma*, n. sp.

♂. 25-29 mm. Head, palpi, and thorax fuscous, face pale yellowish-ochreous. Antennæ and legs light ochreous. Abdomen pale ochreous-yellowish. Forewings elongate, hardly dilated, costa gently arched, apex rounded, hindmargin very obliquely rounded; veins 3 and 4 separate; light brownish-ochreous, sometimes irrorated with fuscous; a straight cloudy rather dark fuscous line from  $\frac{2}{3}$  of costa to  $\frac{2}{3}$  of inner margin, more or less interrupted above middle; cilia light brownish-ochreous. Hindwings and cilia light ochreous-yellowish; a short costal fold beneath before middle.

Melbourne, Victoria; two specimens (Coll. Lucas and Masters).

9. *Scol. pactolias*, n. sp.

♂. 31 mm. Head, thorax, abdomen, and legs yellow-ochreous; palpi and antennæ fuscous. Forewings elongate, posteriorly dilated, costa gently arched, apex obtuse, hindmargin obliquely rounded; veins 3 and 4 stalked; yellow-ochreous, with a few scattered fuscous scales; cilia yellow-ochreous. Hindwings and cilia pale yellowish-ochreous.

Melbourne, Victoria, in April; one specimen (Coll. Lucas).

## 5. TIGRIOIDES, Butl.

Tongue well-developed. Antennæ in ♂ filiform, moderately ciliated (1), with scattered much longer cilia. Palpi short, porrected, tolerably uliform, terminal joint short. Forewings with vein 2 from middle, 3 and 4 stalked, 5 absent, 6 out of 7 near base or separate and sometimes connected with 7 by bar, 8 and 9 out of 7, 11 anastomosing with 12. Hindwings with veins 3 and 4 stalked or coincident, 5 absent, 6 and 7 stalked or coincident, 8 from about middle.

The variations in the structure of vein 6 of the forewings all occur in different individuals of the same species, and are of no importance.

1. Forewings without markings .....13. *nana*.  
     ,, with dark markings ..... 2.
2. With longitudinal branched streaks on veins...12. *furcifera*.  
     Without longitudinal streaks..... 3.
3. With three blackish fasciae.....10. *alterna*.  
     Without ,, ,, ,, ..... 4.
4. With broad greyish-fuscous hindmarginal band..11. *heminephes*.  
     Without ,, ,, ,, ,, 14. *spilarcha*.

10. *Tigr. alterna*, Walk.

(*Setina alterna*, Walk. Bomb. 520 ; *Lithosia transversa*, ib. Suppl. 229.)

♂. 27-31 mm. Head, thorax, and abdomen ochreous-yellow ; thorax with a bar behind collar, patagia except apex, and a posterior spot black. Palpi blackish. Antennæ grey. Legs blackish, posterior pair ochreous-yellow. Forewings elongate, hardly dilated, costa slightly arched, apex obtuse, hindmargin rather obliquely rounded ; ochreous-yellow ; markings blackish ; a narrow costal streak from base to a small transverse spot at  $\frac{2}{5}$  ; a transverse bar from inner margin at  $\frac{1}{3}$ , reaching more than half across wing ; a narrow irregular-edged fascia from  $\frac{2}{3}$  of costa to  $\frac{3}{4}$  of inner margin ; a rather narrow hindmarginal fascia, dilated in middle : cilia light ochreous-yellow, above apex blackish. Hindwings with veins 3 and 4 stalked, 6 and 7 stalked ; pale ochreous-yellow ; a large blackish-grey apical blotch, connected with a narrow cloudy hindmarginal fascia ; cilia pale ochreous-yellow.

Blackheath (3,500 feet) and Bathurst (2,300 feet), New South Wales ; Melbourne, Victoria ; not uncommon.

11. *Tigr. heminephes*, n. sp.

♂. 26-29 mm. Head, palpi, antennæ, thorax, and abdomen ochreous-yellow ; patagia dark fuscous. Legs dark fuscous, posterior pair ochreous-yellow. Forewings elongate, posteriorly strongly dilated, costa moderately arched, apex obtuse, hindmargin obliquely rounded ; ochreous-yellow ; a dark fuscous streak along

basal fourth of costa; posterior  $\frac{2}{5}$  greyish-fuscos except on an irregular costal streak: cilia ochreous-yellow. Hindwings and cilia light ochreous-yellow; veins 3 and 4 stalked, 6 and 7 coincident.

Bathurst (2,300 feet), New South Wales; four specimens.

12. *Tigr. furcifera*, Walk.

(*Setina furcifera*, Walk. Bomb. 520; *S. trifurcata*, ib. Suppl. 237.)

♂. 24-27 mm. Head and thorax ochreous-yellow, with a broad blackish longitudinal stripe across crown and back, and a blackish spot on shoulder. Palpi ochreous mixed with blackish. Antennæ dark fuscous. Abdomen ochreous-yellow. Legs dark fuscous, posterior pair ochreous-yellow. Forewings elongate, posteriorly dilated, costa slightly arched, apex obtuse, hindmargin obliquely rounded; ochreous-yellow; a five-branched blackish streak on subcostal vein, and three-branched similar streak on lower median, confluent towards base; a rather thick blackish streak on vein 1: cilia ochreous-yellow. Hindwings ochreous-yellow; sometimes more or less suffused with grey towards costal half and along submedian fold except towards base; cilia ochreous-yellow.

Tasmania; several specimens sent by Mr. Barnard, jun.; from its marking the species evidently frequents grass.

13. *Tigr. nana*, Walk.

(*Lithosia nana*, Walk. Bomb. 507.)

♂ ♀. 20-22 mm. Head, palpi, antennæ, thorax, abdomen, and legs light yellow-ochreous. Forewings elongate, somewhat dilated, costa gently arched, apex obtuse, hindmargin obliquely rounded; wholly light yellow-ochreous. Hindwings and cilia light yellow-ochreous; veins 3 and 4 stalked, 6 and 7 stalked.

Duaringa, Queensland; several specimens sent by Mr. G. Barnard.



14. *Tigr. spilarcha*, n. sp.

♂ ♀. 23-27 mm. Head, palpi, antennæ, and thorax greyish-fuscous, face whitish-ochreous. Abdomen pale ochreous-yellowish. Legs light ochreous. Forewings elongate, narrow, scarcely dilated, costa slightly arched, apex obtuse, hindmargin slightly rounded; light greyish-ochreous, sprinkled with fuscous; a moderate ochreous-whitish costal streak from base to  $\frac{2}{3}$ ; a small cloudy dark fuscous spot on inner margin at  $\frac{3}{4}$ , and a dot in disc obliquely beyond it: cilia whitish-ochreous. Hindwings and cilia pale ochreous-yellowish; veins 3 and 4 coincident, 6 and 7 stalked.

Sydney, New South Wales; also occurs in Victoria; June; five specimens.

6. *PALAEEXERA*, n. g.

Tongue well-developed. Antennæ in ♂ filiform, evenly ciliated (1), with scattered longer cilia. Palpi short, porrected, loosely scaled, terminal joint short, tolerably pointed. Forewings in ♂ beneath with strong costal fold; 2 out of 3 near base, 3 and 4 long-stalked, 5 absent, 8 and 9 out of 7, 10 from point with 7, 11 anastomosing with 12. Hindwings in ♂ beneath with ridge of erect scales towards middle of costa; 2 and 3 stalked, 4 and 5 absent, 6 and 7 stalked, 8 from middle.

15. *Pal. phyllodes*, n. sp.

♂ ♀. 21-23 mm. Head, palpi, antennæ, thorax, and legs pale ochreous, sometimes brownish-tinged. Abdomen pale yellowish-ochreous. Forewings elongate, in ♂ strongly, in ♀ moderately dilated, costa moderately arched, apex obtuse, hindmargin obliquely rounded; in ♂ yellow-ochreous suffused with brown, in ♀ pale ochreous closely irrorated with rather dark fuscous; two narrow cloudy darker fuscous fasciae, in ♂ very obscure, first beyond middle, obsolete on costal half, second about  $\frac{4}{5}$ , curved, parallel to hindmargin: cilia whitish-ochreous, with a grey line. Hindwings and cilia whitish-ochreous; disc in ♂ ochreous-yellow.

Sydney, New South Wales, in November; three specimens. Frequents swampy jungle; in repose closely resembles a withered leaf.



## 7. TEULISNA, Walk.

Tongue well-developed. Antennæ in ♂ filiform, moderately ciliated (1), with scattered longer cilia. Palpi short, ascending, loosely scaled, terminal joint short, somewhat pointed. Thorax beneath with a transparent oval bladder on each side between second and third coxæ. Forewings in ♂ with strong flap of scales from upper margin of cell above, completely covering cell; 2 from middle, 3 and 4 stalked, 5 absent, 6 from point with 9, 7 and 8 out of 9, 11 anastomosing with 12. Hindwings in ♂ beneath with short thick scaled ridge on submedian fold at base; 3 and 4 stalked, 5 absent, 6 and 7 stalked, 8 from  $\frac{2}{3}$ .

16. *Teul. dasypyga*, Feld.

(*Diastrophia dasypyga*, Feld. Reis. Nov. pl. CVI, 13.)

♂. 28 mm. Head and antennæ whitish-ochreous, fuscous-tinged. Thorax fuscous. Abdomen hairy, dark grey. Forewings elongate, moderately dilated, costa gently arched, apex obtuse, hindmargin rather obliquely rounded, anal angle produced into a strong rounded triangular projection; fuscous; a broad fuscous-whitish costal streak from base to beyond middle, cut by an oblique blackish bar before middle; a narrow obscure darker fascia indicated at  $\frac{2}{3}$ ; cilia fuscous. Hindwings and cilia light ochreous-yellow.

Queensland; one specimen (Coll. Lucas). Felder quotes it from Celebes; I have little doubt of having correctly identified his species; his figure, although stated to represent a ♂, does not show the projecting anal angle of the forewings, which is probably a sexual characteristic, but it is most likely that he mistook the sex, as in many other instances.

## 8. BRUNIA, Moore.

Tongue well-developed. Antennæ in ♂ filiform, moderately ciliated (1), with scattered longer cilia. Palpi rather short, porrected, loosely scaled, terminal joint short, somewhat pointed. Forewings with vein 2 from middle, 3 and 4 stalked, 5 absent, 6

from point with 9, 7 and 8 out of 9, 10 connected with 9 by bar, 11 anastomosing with 12. Hindwings with veins 3 and 4 stalked, 5 absent, 6 and 7 stalked, 8 from middle.

17. *Brun. harpophora*, n.sp.

♀. 33-35 mm. Head, palpi, and abdomen pale yellow-ochreous. Antennæ dark fuscous. Thorax fuscous-grey, anterior margin rather narrowly pale yellow-ochreous. Legs dark grey, femora and posterior pair yellow-ochreous. Forewings elongate, somewhat dilated, costa slightly arched, apex rounded, hindmargin rather obliquely rounded; slaty-grey; a moderate pale yellowish-ochreous streak along costa from base, continued round apex and gradually attenuated thence to anal angle; base of inner margin pale yellowish-ochreous: cilia pale yellowish. Hindwings and cilia pale ochreous-yellowish.

Cooktown and Cairns, Queensland; three specimens (Coll. Macleay).

18. *Brun. replana*, Lw.

(*Lithosia replana*, Lw. Ins. N.S.W. 16, pl. XV; *L. dispar*, Leach Zool. Misc. I, 109, pl. XLIX, 1-3.)

♂ ♀. 28-41 mm. Head ochreous-yellow, with a blackish bar on forehead. Palpi and antennæ blackish. Thorax blackish, posterior half of collar and a posterior spot ochreous-yellow. Abdomen ochreous-yellow. Legs blackish. Forewings elongate, somewhat dilated, costa slightly arched, apex obtuse, hindmargin rather obliquely rounded; blackish-grey; a moderate pale yellow-ochreous almost costal streak from base to  $\frac{3}{4}$ ; base narrowly pale yellow-ochreous except on costa; in ♂ a rather large irregular whitish-ochreous blotch in disc before middle: cilia pale ochreous-yellowish. Hindwings and cilia light ochreous-yellowish; a rather narrow irregular variable cloudy dark grey streak along upper half of hindmargin sometimes obscurely continued to anal angle.

Queensland; Sydney, New South Wales; South Australia; in October, November, March, April, and June; common.

## 9. LITHOSIA, F.

Tongue well-developed. Antennæ in ♂ filiform, evenly ciliated, with scattered much longer cilia. Palpi rather short, porrected, filiform, terminal joint short, obtuse. Thorax rather hairy beneath. Forewings with vein 2 from middle, 3, 4, 5 approximated at base, 7 and 8 out of 9, 10 connected with 9 by bar. Hindwings with vein 3 almost from point with or out of 4, 4 and 5 stalked or coincident, 6 and 7 stalked, 8 from middle.

Sect. A. veins 4 and 5 of hindwings coincident.

19. *Lith. chionora*, n. sp.

♂. 29 mm. Head, palpi, and antennæ whitish-yellowish. Thorax white. Abdomen and legs pale ochreous-yellowish, anterior and middle tibiæ and tarsi infuscated. Forewings elongate, moderately dilated, costa posteriorly moderately arched, apex obtuse, hindmargin obliquely rounded, slightly sinuate; white; costal edge slenderly ochreous-yellow; cilia white. Hindwings and cilia pale ochreous-yellow; 3 and 4 stalked.

Sydney, New South Wales; one specimen (Coll. Masters).

Sect. B. veins 4 and 5 of hindwings stalked.

20. *Lith. bicosta*, Walk.

(*Lithosia bicosta*, Walk. Bomb. 506; *L. fraterna*, Butl., Trans. Ent. Soc. Lond. 1877, 349.)

♂ ♀. 29-31 mm. Head and palpi orange, face and antennæ dark fuscous. Thorax fuscous-grey, shoulders orange. Abdomen hairy, whitish-ochreous, sometimes greyish-tinged. Legs grey, posterior pair whitish-ochreous. Forewings elongate, moderately dilated, costa gently arched, apex obtuse, hindmargin rather obliquely rounded; grey, slightly brownish-tinged; a slender orange costal streak, bordered beneath by a slender white streak; cilia grey, tips whitish. Hindwings and cilia light ochreous-yellow; 3 and 4 almost from point.

Sydney, New South Wales; Tasmania; Mount Lofty, South Australia; October; not uncommon.

## 10. SYMMETRODES, n.g.

Tongue well-developed. Antennæ filiform, (in ♂ probably evenly ciliated,) with scattered longer cilia. Palpi short, porrected, tolerably filiform, terminal joint short, pointed. Forewings with vein 2 from middle, 7 and 8 out of 9, 11 anastomosing with 12. Hindwings with veins 6 and 7 stalked, 8 from middle.

21. *Symm. nitens*, Walk.

(*Lithosia nitens*, Walk. Suppl. 231; *L. remota*, ib. Char. Het. 9, teste Butl.)

♀. 27-28 mm. Head, palpi, antennæ, thorax and abdomen light ochreous-yellow. Legs fuscous, posterior pair yellowish. Forewings elongate-triangular, costa moderately arched, apex rounded, hindmargin obliquely rounded; whitish-ochreous, base ochreous-yellow; sometimes a faint curved greyish line at  $\frac{1}{4}$ ; sometimes a cloudy dentate curved greyish line at  $\frac{3}{4}$ ; sometimes posterior half of wing suffused obscurely with grey: cilia whitish-ochreous. Hindwings whitish-ochreous, sometimes obscurely suffused with grey except towards base; cilia whitish-ochreous.

Queensland; three specimens (Coll. Lucas). Appears to vary considerably. In this instance I have identified Walker's species from description only, and it is possible I may be mistaken.

## 11. HETERALLACTIS, n.g.

Tongue well-developed. Antennæ —(?). Palpi rather short, slender, filiform, terminal joint moderate, pointed. Forewings with vein 2 out of 3, 3 and 4 stalked, 5 absent, 6 approximated to 7 at base, 7 and 8 stalked. Hindwings with veins 3 and 4 approximated at base, 5 absent, 6 and 7 stalked, 8 from middle.

A singular genus.

22. *Het. euchrysa*, n. sp.

♂. 19 mm. Head and collar clear pale yellow, thorax fuscous. Palpi yellowish, towards base dark fuscous. (Antennæ broken.) Abdomen grey, anal tuft whitish-ochreous. Legs whitish-ochreous.



Forewings oblong-oval, costa strongly arched, apex rounded, hindmargin obliquely rounded; bright pale brassy-yellow; a fuscous basal patch, edged by a straight dark purple fuscous line from costa near base to  $\frac{1}{4}$  of inner margin; a rather broad somewhat irregular fuscous-purple fascia from costa about  $\frac{2}{3}$  to inner margin before anal angle, anteriorly dark-margined, containing two darker dots in disc, and followed by a faint reddish suffusion below middle: cilia pale brassy-yellowish. Hindwings broad, rounded; grey; cilia grey, towards apex whitish.

Brisbane, Queensland, in September; one specimen.

## 12. CALLIGENIA, Dup.

Tongue well-developed. Antennæ in ♂ filiform, evenly ciliated (1), with scattered longer cilia. Palpi rather short, porrected, loosely scaled, terminal joint short, tolerably pointed. Forewings with vein 2 from middle, 7 and 8 out of 9, 11 anastomosing with 12. Hindwings with veins 4 and 5 from a point or stalked, 6 and 7 stalked, 8 from beyond middle.

The variations in structure of veins 4 and 5 of the hindwings occur within the limits of the same species.

### A. Hindwings with broad dark fuscous marginal

band .....26. *structa*.

### B. „ without „ „

#### a. Forewings more or less rosy.

1. Thorax grey, with rosy spots .....24. *cyclota*.

2. „ wholly rosy.....23. *pyraula*.

#### b. Forewings not rosy .....25. *melitaula*.

## 23. *Call. pyraula*, n. sp.

♀. 31 mm. Head, palpi, antennæ, thorax, and legs bright ochreous-rosy. Abdomen whitish-rosy. Forewings elongate, strongly dilated, costa moderately arched, apex obtuse, hindmargin obliquely rounded; bright ochreous-rosy; markings formed by irroration of light grey scales, obscurely darker-edged; four or five spots near base; a slender twice indented fascia at  $\frac{1}{5}$ ; a narrow fascia

at  $\frac{2}{5}$ , sharply angulated above middle, connected with first fascia above middle by a slender streak; a narrow irregularly curved fascia from beyond middle of costa to  $\frac{3}{4}$  of inner margin, touching angle of second fascia, and indented near inner margin; a very indistinct cloudy band between this and hindmargin, tending to form streaks on veins; hindmargin and costa posteriorly clearer rosy; a hindmarginal series of dark grey dots: cilia pale grey. Hindwings and cilia rosy-whitish, ochreous-tinged.

Queensland; one specimen (Coll. Lucas).

24. *Call. cyclota*, n. sp.

♀. 32 mm. Head pale rosy, with a grey cross on crown. Palpi grey, rosy towards base. Antennæ grey. Thorax grey, with about ten irregular pale rosy spots. Abdomen whitish-rosy. Legs rosy, femora and tibiæ with dark grey subapical bands. Forewings elongate, strongly dilated, costa moderately arched, apex obtuse, hindmargin obliquely rounded; dark grey; a round yellow reddish-edged spot very near base in middle; a pale yellowish rosy-edged suboblong spot on costa at  $\frac{1}{3}$ , connected with inner margin at  $\frac{1}{4}$  by a curved series of three small rosy spots; a pale yellowish subtriangular spot, mixed with rosy, on middle of costa, a round yellowish rosy-edged spot in disc beneath it, and a small rosy spot on middle of inner margin; two transverse series of about eight small spots, first about  $\frac{3}{4}$ , curved, nearly parallel to hindmargin, second hindmarginal: cilia grey. Hindwings ochreous-whitish; hindmargin narrowly pale rosy; cilia ochreous-whitish.

Cairns, Queensland; two specimens (Coll. Lucas and Macleay.)

25. *Call. melिताula*, n. sp.

♂ ♀. 28-32 mm. Head, palpi, and thorax ochreous-yellow, slightly reddish-tinged; palpi externally grey; thorax with two anterior dorsal spots, a mark on outer side of patagia, and a transverse posterior mark grey. Antennæ grey. Abdomen and legs ochreous-yellow, tarsi and tibiæ grey towards apex, anterior pair almost wholly grey. Forewings elongate-triangular, costa

moderately arched, apex rounded, hindmargin rather obliquely rounded; yellow-ochreous, base slightly reddish-tinged; a basal spot on costa and four narrow curved fasciæ rather dark grey; first at  $\frac{1}{4}$ ; second slightly before middle, irregular, connected with first by a bar in middle and less perfectly again near inner margin; third about  $\frac{2}{3}$ , connected with second by a line towards costa, and with an acute indentation below middle almost touching second; fourth subterminal, anteriorly acutely dentate, and touching third near costa, connected with hindmargin by a bar at  $\frac{1}{4}$  and another in middle: cilia light ochreous-yellow, sometimes obscurely barred with grey. Hindwings and cilia light ochreous-yellowish.

Queensland; three specimens (Coll. Macleay).

26. *Call. structa*, Walk.

(*Pallene structa*, Walk. Bomb. 543.)

♂ ♀. 17-22 mm. Head, palpi, thorax, and abdomen ochreous-orange; thorax with three or four very small grey spots. Antennæ dark grey. Legs orange, suffused with dark grey above. Forewings rather elongate-triangular, costa moderately arched, apex rounded, hindmargin rounded, hardly oblique; ochreous-orange, more or less suffusedly sprinkled with dark fuscous; two or three dark fuscous spots near base; three rather strong dentate narrowly curved dark fuscous transverse lines, first about  $\frac{1}{4}$ , second before middle, third from  $\frac{2}{3}$  of costa to  $\frac{3}{4}$  of inner margin; veins posteriorly sometimes lined with dark fuscous; a hindmarginal series of dark fuscous dots: cilia grey. Hindwings ochreous-orange; a few grey scales in disc before middle; a more or less broad dark fuscous hindmarginal band, somewhat narrowed beneath; cilia dark fuscous.

Richmond River, Newcastle, and Sydney, New South Wales; not uncommon.

13. *HECTOBROCHA*, n.g.

Tongue well-developed. Antennæ in ♂ filiform, evenly ciliated (1), with scattered longer cilia. Palpi moderate, porrected,

loosely scaled, terminal joint moderate, cylindrical, obtuse. Thorax rather hairy beneath. Forewings with vein 2 from middle, 5 absent, 6 connected with 7 by a bar near base, 8 and 9 out of 7, 10 from point with 7. Hindwings with veins 3 and 4 from a point, 6 and 7 stalked, 8 from  $\frac{1}{3}$ .

27. *Hect. pentacyma*, n.sp.

♂. 28 mm. Head white. Palpi and antennæ blackish. Thorax white, a spot on base of patagia, two spots on middle of back and two on posterior margin black. Abdomen and legs pale ochreous-yellowish, anterior and middle tibiae and tarsi suffusedly banded with dark fuscous. Forewings rather elongate-triangular, costa moderately arched, apex rounded, hindmargin somewhat obliquely rounded; white, towards hindmargin becoming whitish-ochreous; a blackish elongate spot on costa near base, and two small obliquely placed black spots in middle very near base; four somewhat irregular slightly curved dentate blackish transverse lines, nearly parallel; first at  $\frac{1}{4}$ , second in middle, third at  $\frac{3}{4}$ , fourth near beyond third; a rather large round black dot in disc beyond first line, two others obliquely placed beyond second, and another beyond and touching fourth; a dentate submarginal dark fuscous line, teeth touching hindmargin: cilia pale ochreous-yellowish. Hindwings and cilia pale ochreous-yellowish.

Queensland (?); one specimen, unfortunately without record of locality.

14. *NEOBROCHIA*, n.g.

Tongue well-developed. Antennæ in ♂ filiform, evenly ciliated, with scattered much longer cilia. Palpi rather short, loosely scaled, rough at base, ascending, terminal joint rather short, obtuse. Thorax in ♂ beneath with striated bladder on each side above third coxae. Forewings with vein 2 from middle, 3 sometimes running into 4 before apex, 5 absent, 6 from point with 7 or separate, 8 and 9 out of 7, 10 sometimes out of 7 near base.

Hindwings with veins 3 and 4 from a point or separate, 5 absent, 6 and 7 stalked, 8 from middle.

The two species are very similar, but have structural differences.

28. *Neobr. phaeocyma*, n. sp.

♂. 25 mm. Head, palpi, and antennæ pale brownish-ochreous, space between antennæ fuscous. Thorax pale brownish-ochreous, with an indistinct dark fuscous transverse anterior line. Abdomen grey, anal tuft whitish-ochreous. Legs pale ochreous, anterior tibiæ fuscous towards apex. Forewings subtriangular, costa gently arched, apex rounded, hindmargin obliquely rounded; a short thick membranous fold beneath near costa beyond cell; veins 3 and 4 confluent towards apex, 6 from point with 7, 10 and 11 distorted; light brownish-ochreous, with scattered fuscous scales, and ill-defined dark fuscous markings; four somewhat curved dentate lines parallel to hindmargin, at  $\frac{1}{4}$ ,  $\frac{2}{5}$ , and two near together about  $\frac{2}{3}$ ; a small discal spot near before third; a faint subterminal similar line; a hindmarginal row of subquadrate fuscous spots: cilia whitish-ochreous, with a grey line. Hindwings and cilia grey, slightly brownish-tinged; veins 3 and 4 separate.

Thursday Island, Torres Straits; one specimen (Coll. Lucas).

29. *Neobr. adoxa*, n. sp.

♂. 35 mm. Head, antennæ, thorax, abdomen, and legs pale fuscous; palpi dark fuscous. Forewings rather elongate-triangular, costa moderately arched, apex rounded, hindmargin somewhat oblique, rounded; veins 3 and 4 separate, 6 separate, 10 out of 7 near base; light fuscous, thinly sprinkled with dark fuscous, more thickly towards base and hindmargin; four cloudy dentate somewhat unevenly curved dark fuscous transverse lines, at  $\frac{1}{4}$ , middle, and two together at  $\frac{2}{3}$ ; a dark fuscous discal dot beyond second: cilia whitish-fuscous. Hindwings and cilia whitish-fuscous; veins 3 and 4 from a point.

New South Wales; one specimen (Coll. Macleay).



## 15. PARELICTIS, n.g.

Tongue well-developed. Antennæ in ♂ filiform, evenly ciliated ( $\frac{2}{3}$ ), with scattered longer cilia. Palpi moderate, arched, ascending, second joint with dense scales, somewhat rough beneath, terminal joint moderate, filiform, obtuse. Thorax rather hairy beneath. Forewings in ♂ with a short rough-scaled furrow beneath vein 2; 2 from  $\frac{3}{4}$ , 7 and 8 stalked, 9 and 10 stalked. Hindwings in ♂ with apical part of costa lobed, partially aborted, and a short rough-scaled furrow beneath vein 2; 5 absent, 6 and 7 stalked, 8 from middle, in ♂ much contorted.

30. *Par. saleuta*, n. sp.

♂ ♀. 37-39 mm. Head, antennæ, and thorax fuscous mixed with black. Palpi black, somewhat mixed with whitish-ochreous. Abdomen light ochreous-yellow. Legs blackish, ringed with whitish, posterior pair suffused with ochreous-whitish. Forewings rather elongate-triangular, costa gently arched, in ♂ sinuate in middle, apex obtuse, hindmargin slightly sinuate, somewhat oblique, inner margin in ♂ emarginate beyond middle; white, finely and densely irrorated with dark fuscous; about twelve cloudy subdentate irregular curved transverse dark fuscous lines, formed by minute blackish striæ on a yellowish ground; veins obscurely yellowish: cilia dark fuscous mixed with whitish, with yellowish lines on veins. Hindwings and cilia light ochreous-yellow.

Sydney, New South Wales; also from Victoria; five specimens (Coll. Lucas, Macleay, and Masters).

## 16. TERMESSA, Walk.

Tongue well-developed. Antennæ in ♂ filiform, evenly ciliated (1), with scattered longer cilia. Palpi moderate, arched, ascending, loosely scaled, terminal joint rather short, pointed. Thorax rather hairy beneath. Forewings with vein 2 from  $\frac{2}{3}$ , 7 and 8 stalked, 9 and 10 stalked. Hindwings with veins 6 and 7 from a point or very short-stalked, 8 from  $\frac{1}{3}$ .

- A. Hindwings white .....31. *nivosa*.  
 B. „ yellow.  
   a. Forewings with apex obtuse.  
     1. Groundcolour of forewings dark fuscous..32. *catocalina*.  
     2. „ „ yellow or whitish.  
       i. Anterior margin of thorax blackish.  
         \*. Forewings with first fascia blackish-fuscous.  
           †. Cilia of hindwings wholly yellow.33. *Shepherdi*.  
           ††. „ „ broadly blackish beneath apex.....34. *laeta*.  
         \*\*. Forewings with first fascia ochreous-yellow, black-margined .....35. *gratiosa*.  
       ii. Anterior margin of thorax not blackish.36. *congrua*.  
   b. Forewings with apex subfalcate.  
     1. Forewings with blackish fasciæ entire...37. *discrepans*.  
     2. „ „ not reaching costa .....38. *conographa*.

31. *Term. nivosa*, Walk.

(*Lerna nivosa*, Walk. Suppl. 805.)

♂ ♀. 27-29 mm. Head white, face and palpi orange. Antennæ blackish. Thorax white, with a black dot on shoulder. Abdomen white, anal tuft orange. Legs orange, anterior and middle tibiae and tarsi spotted with blackish. Forewings rather elongate-triangular, costa slightly arched, apex tolerably obtuse, hindmargin straight, somewhat oblique, rounded beneath; white; a slender black costal streak from base to  $\frac{4}{5}$ , having on its lower margin a black dot at each extremity, and one at  $\frac{1}{3}$  of costa; a short orange elongate mark on costa beyond this: cilia white, on upper  $\frac{2}{3}$  of hindmargin with five or six adjacent quadrate blackish spots on basal half. Hindwings white; a small round blackish spot on hindmargin below middle, sometimes obsolete; cilia white.

Sydney, New South Wales; Melbourne, Victoria; in September; three specimens.

32. *Term. catocalina*, Walk.*(Clisobara catocalina*, Walk. Suppl. 269.)

♂. 28-29 mm. Head, palpi, antennæ, thorax, and legs dark fuscous; abdomen and posterior legs ochreous-yellowish. Forewings elongate-triangular, costa gently arched, apex obtuse, hindmargin rather obliquely rounded; dark fuscous, sprinkled with white hair-scales, which tend to form a spot on costa before middle; the absence of white irroration forms five cloudy irregularly dentate darker transverse lines; first very near base, second about  $\frac{1}{5}$ , third from  $\frac{2}{5}$  of costa to middle of inner margin, fourth from beyond middle of costa to  $\frac{3}{4}$  of inner margin, fifth from costa near apex to anal angle: cilia dark fuscous, somewhat mixed with whitish. Hindwings ochreous-yellow; a moderate almost apical blackish spot; a large round blackish spot on hindmargin below middle, sending a narrow streak along hindmargin to anal angle; cilia pale yellow.

Sydney, New South Wales, in October; five specimens.

33. *Term. Shepherd*i, Newm.

(*Termessa Shepherd*i, Newm., Trans. Ent. Lond. III. (N.S.) 285, pl. XVIII, 11).

♀. 33 mm. Head whitish-ochreous. Palpi and antennæ blackish. Thorax ochreous-white, anterior margin and patagia black. Abdomen light ochreous-yellow. Legs dark fuscous, posterior pair yellowish. Forewings elongate-triangular, costa gently arched, apex obtuse, hindmargin rather obliquely rounded; ochreous-white, hindmargin more ochreous; costal edge black towards base; a narrow black fascia near base, not reaching inner margin; two broad blackish fasciæ, sprinkled with whitish except on margins, very irregularly dentate; first from about  $\frac{1}{3}$  of costa to  $\frac{2}{5}$  of inner margin, second from  $\frac{3}{5}$  of costa to anal angle; an irregular blackish streak along upper  $\frac{2}{3}$  of hindmargin, tending to form five small spots: cilia dark grey, above apex and above anal angle broadly whitish-ochreous. Hindwings ochreous-yellow; a

small blackish spot before apex; a larger suboval blackish spot resting on hindmargin below middle; cilia wholly ochreous-yellow.

Melbourne, Victoria; two specimens.

34. *Term. læta*, Walk.

(*Termessa læta*, Walk. Bomb. 1689.)

♂ ♀. 27-29 mm. Head and thorax ochreous-whitish or yellow; collar, palpi, and antennæ black. Abdomen ochreous-yellow. Legs dark fuscous, posterior pair yellowish. Forewings elongate-triangular, costa gently arched, apex obtuse, hindmargin rather obliquely rounded; whitish-ochreous or ochreous-yellow, with blackish-fuscous markings; costal edge black towards base; a small spot on base of costa; two moderate or rather broad very irregular-edged fasciæ, rarely touching in disc and on inner margin; first from  $\frac{1}{3}$  of costa to  $\frac{2}{5}$  of inner margin, second from  $\frac{2}{3}$  of costa to anal angle; an irregular subtriangular spot on upper half of hindmargin, sometimes touching second fascia: cilia blackish-fuscous, above apex and above anal angle broadly pale ochreous-yellow. Hindwings ochreous-yellow; a small or moderate blackish spot before apex; a small or moderate round blackish spot near or resting on hindmargin below middle, sometimes sending a slender streak along hindmargin to anal angle; cilia ochreous-yellow, beneath apex broadly blackish.

Sydney and Mount Kosciusko (3,800), New South Wales; Melbourne, Victoria; Albany, West Australia; in October, November, and January, rather common.

35. *Term. gratiosa*, Walk.

(*Eutane gratiosa*, Walk. Suppl. 239.)

♂ ♀. 23-25 mm. Head white. Palpi and antennæ black. Thorax white, a broad anterior band blackish. Abdomen and legs ochreous-yellow. Forewings elongate-triangular, costa gently arched, apex obtuse, hindmargin hardly rounded, rather oblique;

white; costal and dorsal margins slenderly ochreous-yellowish; costal edge black towards base, with a small black basal spot; a moderately broad rather irregular-edged ochreous-yellow fascia from  $\frac{1}{5}$  of costa to before middle of inner margin, somewhat mixed with fuscous, and strongly margined with dark fuscous; a moderate rather irregular-edged dark fuscous fascia from  $\frac{3}{4}$  of costa to anal angle, rather angulated inwards in middle, slightly mixed with ochreous in disc; a triangular blackish spot on upper half of hindmargin, sometimes touching second fascia: cilia dark fuscous, above apex and above anal angle broadly ochreous-whitish. Hindwings ochreous-yellow; a moderate blackish spot before apex, and a similar spot on hindmargin below middle, sending a slender streak along inner margin towards anal angle: cilia ochreous-yellow, beneath apex broadly blackish.

Sydney, New South Wales; also from Victoria; in October; four specimens.

36. *Term. congrua*, Walk.

(*Termessa congrua*, Walk. Suppl. 265.)

♂ ♀. 28-31 mm. Head, palpi, thorax, and abdomen ochreous-yellow; patagia dark fuscous except towards apex. Antennæ grey. Legs dark fuscous, posterior pair ochreous-yellow. Forewings elongate-triangular, costa moderately arched, apex obtuse, hindmargin somewhat obliquely rounded; light ochreous-yellow, with blackish-fuscous markings; a small spot on base of costa; a moderate irregular fascia from  $\frac{1}{4}$  of costa to  $\frac{1}{3}$  of inner margin; a similar slightly broader fascia from  $\frac{2}{3}$  of costa to anal angle; a subtriangular spot on hindmargin above middle, sometimes connected with second fascia; cilia dark fuscous, above apex and above anal angle broadly ochreous-yellow. Hindwings ochreous-yellow; a dark fuscous irregular fascia from costa near apex to about middle of hindmargin, thence along hindmargin to anal angle, dilated in middle, sometimes connected with hindmargin beneath apex by a bar; cilia ochreous-yellow, towards anal angle grey, and sometimes on a spot beneath apex.

Sydney, New South Wales, in October; five specimens.



37. *Term. discrepans*, Walk.

(*Termessa discrepans*, Walk. Suppl. 265; *T. hamula*, Feld. Reis. Nov. pl. CVI, 5.)

♀. 25-30 mm. Head light ochreous-yellow or whitish, face and palpi black. Antennæ grey. Thorax blackish, anterior margin rather broadly light ochreous-yellow or whitish. Abdomen ochreous-yellow. Legs dark fuscous, posterior pair ochreous-yellow. Forewings elongate-triangular, costa gently arched, apex acute, hindmargin deeply concave beneath apex, rather oblique, rounded beneath; light ochreous-yellow or ochreous-whitish, with two moderate irregular-edged blackish fasciæ; first from  $\frac{1}{3}$  of costa to before middle of inner margin, second from  $\frac{3}{4}$  of costa to anal angle: cilia whitish-yellowish, on upper half of hindmargin and anal angle blackish. Hindwings ochreous-yellow; a moderate blackish hindmarginal fascia, deeply acutely indented above middle, attenuated towards anal angle; cilia light ochreous-yellow, above and below middle of hindmargin broadly dark grey.

New South Wales; Fernshaw, Victoria; three specimens. Felder quotes South America as a locality; this is undoubtedly one of his numerous errors.

38. *Term. conographa*, n sp.

♀. 24 mm. Head whitish-ochreous, face black. Palpi pale yellowish, terminal joint blackish. Antennæ dark fuscous. Thorax whitish-ochreous, posterior half black. Abdomen light ochreous-yellow. Legs yellow, anterior and middle tibiae and tarsi dark fuscous. Forewings triangular, costa anteriorly straight, posteriorly strongly arched, apex acute, falcate, hindmargin concave beneath apex, thence hardly oblique, rounded; clear whitish-ochreous; a large triangular black patch extending on near inner margin from near base to middle, upper side rather near and parallel to costa, posterior side straight, hardly oblique; a broad erect black fascia resting on posterior third of inner margin, not reaching costa, apex rounded, leaving a narrow hindmarginal streak of ground colour; a small black apical spot: cilia

whitish-ochreous, on apex and anal angle black, beneath apex black at base. Hindwings light ochreous-yellow; a moderate irregular dark fuscous hindmarginal fascia, indented and almost interrupted above middle, below middle with an angular projection, on anal angle suddenly narrowed; cilia dark fuscous, with apical and median pale yellowish spots, on inner margin pale yellowish.

Maryborough, Queensland; one specimen (Australian Museum).

### 17. *CLUACA*, Walk.

Tongue well-developed. Antennæ in ♂ moderately bipectinated throughout. Palpi moderate, porrected, with loosely appressed scales, terminal joint moderate, somewhat pointed. Abdomen in ♂ somewhat tufted laterally towards apex. Forewings with vein 2 from beyond middle, 7 and 8 stalked, 9 and 10 stalked. Hindwings with veins 3 and 4 from a point or short-stalked, 6 and 7 closely approximated at base or short-stalked, 8 from  $\frac{1}{3}$ .

### 39. *Clua. struthias*, n.sp.

♂. 31 mm. Head, palpi, antennæ, and thorax blackish; collar red, mixed with black in middle. Abdomen light ochreous-yellow. Legs dark fuscous. Forewings rather elongate-triangular, costa moderately arched, apex tolerably rectangular, hindmargin rather obliquely rounded; blackish-fuscous; a pale ochreous-yellow streak along inner margin from base to  $\frac{4}{5}$ , anteriorly dilated into an angular yellow spot, posteriorly merged with a broad outwards-curved pale ochreous-yellow fascia from beyond middle of costa to  $\frac{3}{4}$  of inner margin, on costa blackish-edged, considerably dilated in disc, and containing a curved transverse-linear blackish-fuscous discal spot: cilia dark fuscous. Hindwings light ochreous-yellow; an indistinct grey discal dot; a very narrow dark fuscous hindmarginal fascia; cilia dark fuscous; veins 3 and 4 short-stalked, 6 and 7 short-stalked.

New South Wales; one specimen (Coll. Macleay).

40. *Clua. rubricosta*, Walk.( *Cluaca rubricosta*, Walk. Suppl. 269.)

♂. 29-33 mm. Head, antennæ, and thorax blackish ; collar red. Palpi red. Abdomen light ochreous-yellow, rosy-tinged. Legs blackish, posterior pair above whitish-ochreous, rosy-tinged, coxæ rosy. Forewings rather elongate-triangular, costa posteriorly moderately arched, apex obtuse, hindmargin somewhat obliquely rounded ; blackish-fuscous ; a narrow red costal streak from  $\frac{1}{5}$  to  $\frac{2}{3}$  ; a small spot at base of inner margin and a dot in middle very near base pale rosy or yellowish ; sometimes a pale rosy or yellowish dot on inner margin at  $\frac{3}{4}$ , in one specimen surmounted by a small round yellow spot : cilia blackish-grey, tips paler. Hindwings light ochreous-yellow ; a moderate blackish hindmarginal band, narrowed beneath and not quite reaching anal angle ; cilia dark grey, on inner margin ochreous-yellow, rosy-tinged ; veins 3 and 4 from a point, 6 and 7 approximated at base.

Fernshaw, Victoria ; also from Tasmania ; three specimens.

18. *Zia*, Walk.

Face with projecting scales ; tongue well-developed. Antennæ in ♂ filiform, moderately ciliated (1). Palpi moderately long, porrected, clothed with dense loose scales beneath. Thorax crested posteriorly. Abdomen with small crest near base. Middle and posterior tibiæ with long loose hairs above. Forewings with tufts of scales on surface ; 2 from middle, 7 and 8 out of 9. Hindwings with veins 3 and 4 stalked, 5 approximated to 4 at base, 6 and 7 from a point, 8 from middle.

41. *Zi. tactalis*, Walk.

(*Zia tactalis*, Walk. Cramb. 110 ; *Aquita horridella*, ib. 200).

♂ ♀. 24-34 mm. Head, thorax, and abdomen white, somewhat sprinkled with brownish, thorax with some marginal black scales.

Palpi brownish, internally white. Antennæ whitish. Legs light fuscous. Forewings elongate, suboblong, slightly dilated, costal gently arched, apex rounded, hindmargin oblique, almost straight; white, sometimes irrorated with fuscous; a blackish streak along submedian fold from base to middle, bordered above by a reddish-fuscous suffusion extending anteriorly to costa; two tufts of blackish-fuscous scales obliquely placed in disc; two series of short fine black longitudinal strigulæ, first from  $\frac{1}{4}$  of costa to  $\frac{2}{5}$  of inner margin, acutely angulated in disc, second from middle of costa to beneath costa at  $\frac{2}{3}$ , thence to near middle of hindmargin, and acutely angulated to  $\frac{2}{3}$  of inner margin; a cloudy brown subtriangular spot on costa at  $\frac{3}{4}$ , containing a black strigula; a short oblique brown streak before hindmargin beneath apex, containing two short black longitudinal strigulæ; a dark brown hindmarginal line: cilia fuscous mixed with white. Hindwings in ♂ grey-whitish, in ♀ pale grey, apex and hindmargin darker; cilia grey-whitish.

Rockhampton, Queensland; Sydney, New South Wales; three specimens.

#### 19. SOROCOSTIA, Ros.

Face with projecting scales; tongue well-developed. Antennæ in ♂ filiform, rather strongly ciliated ( $1\frac{1}{2}$ -2), basal joint somewhat tufted. Palpi from moderate to very long, straight, porrected, densely rough-haired above and beneath. Middle and posterior tibiæ clothed with long fine loose hairs above, in ♀ less strongly. Forewings with tufts of scales on surface; 2 from beyond middle, 7 and 8 out of 9, 10 absent. Hindwings with veins 2, 3, and 5 parallel, 4 absent, 6 and 7 stalked or rarely from a point, 8 from middle.

The forewings have in all the species of this and the following genus three more or less strong tufts of scales in a row near the costa, the first being near the base and the third about the middle. The species are all small and inconspicuous, and therefore much neglected. The length of the palpi is stated in terms of the breadth of the eye.

## A. Head wholly white.

- a. Forewings with blackish transverse lines.
  - 1. Forewings with three black strigulae before lower part of hindmargin .....42. *paroxynta*.
  - 2. Forewings without black strigulae before lower part of hindmargin.
    - i. Forewings with first and second tufts black .....44. *semograpta*.
    - ii. Forewings with first and second tufts light grey .....53. *leucoma*.
- b. Forewings without blackish transverse lines.
  - 1. Forewings with well-defined slender white subterminal line .....47. *vetustella*.
  - 2. Forewings without well-defined slender white subterminal line.
    - i. Forewings with second tuft connected with costa by a direct streak.....46. *paromoea*.
    - ii. Forewings with second tuft not connected with costa by a direct streak 45. *irenica*.

## B. Head more or less irrorated with darker.

- a. Forewings with a blackish subcostal streak from base .....48. *aulacota*.
- b. Forewings without a blackish subcostal streak from base.
  - 1. Forewings without blackish transverse lines.....49. *parallacta*.
  - 2. Forewings with blackish transverse lines.
    - i. Forewings without hindmarginal black marks .....51. *arachneis*.
    - ii. Forewings with hindmarginal black marks
      - \*. Hindmarginal black marks longitudinally elongate..... 43. *trigonota*.
      - \*\**. Hindmarginal black marks round, dot-like.....*
        - †. Forewings with a small round black subapical spot .....52. *epicentra*.
        - ††. Forewings without a small round black subapical spot 50. *cycota*.



42. *Sor. paroxynta*, n. sp.

♀. 14-16 mm. Head white. Palpi 3, white, externally with a longitudinal ochreous streak irrorated with black. Antennæ whitish. Thorax white, sprinkled with fuscous. Abdomen whitish-grey. Legs grey-whitish, anterior and middle tarsi dark fuscous ringed with whitish. Forewings elongate, somewhat dilated, costa moderately arched, apex roundpointed, hindmargin nearly straight, rather strongly oblique; grey, very finely irrorated with white; a blackish irroration forming a cloudy median streak from base to middle, expanded in disc; lines very fine, black, somewhat interrupted; first from  $\frac{1}{4}$  of costa to  $\frac{1}{3}$  of inner margin, strongly curved; second from middle of costa very obliquely outwards, twice very acutely dentate outwards above middle, thence to inner margin at  $\frac{3}{4}$ , posteriorly irregularly margined with white except towards costa; inner and hind margins narrowly suffused with brownish-ochreous; an ochreous-brown streak near before and parallel to lower half of hindmargin, containing three short black sometimes confluent longitudinal strigulæ; a hindmarginal row of short black strigulæ: cilia grey, irrorated with white points, and with a row of black points. Hindwings and cilia light grey.

Sydney, New South Wales; in August and March; three specimens.

43. *Sor. trigonota*, n. sp.

♂ ♀. 18-19 mm. Head and thorax white, thinly irrorated with grey. Palpi 3, grey, irrorated with white. Antennæ and abdomen whitish. Legs grey, ringed with white, posterior pair white. Forewings elongate-triangular, costa moderately arched, apex rounded, hindmargin nearly straight, rather strongly oblique; whitish-grey; a black dot on base of costa; a fine oblique blackish strigula from costa near base to first tuft; a blackish mark on costa beyond  $\frac{1}{4}$ ; first and second lines indicated by two rows of black dots, starting from blackish marks on costa; first from  $\frac{2}{3}$  of costa to  $\frac{1}{4}$  of inner margin, angulated on second tuft, which is blackish; a blackish mark on costa beyond this, terminating in

third tuft, which is white posteriorly ; second line from  $\frac{3}{4}$  of costa parallel to hindmargin, indented beneath costa, preceded by a very indistinct similar line ; subterminal and hindmarginal rows of longitudinally elongate black marks ; a triangular fuscous shade on hindmargin above middle, produced obscurely along margin : cilia grey, with white points, and a few blackish scales. Hindwings and cilia grey-whitish.

Melbourne, Victoria ; two specimens (Coll. Lucas).

44. *Sor. semograptæ*, n. sp.

♀. 16 mm. Head, antennæ, and thorax white. Palpi  $1\frac{3}{4}$ , white, with a few black points. Abdomen whitish-grey. Legs white, sprinkled with dark fuscous, anterior tibiae banded with dark fuscous. Forewings elongate-triangular, costa gently arched, apex round-pointed, hindmargin nearly straight, rather strongly oblique ; white ; a small black spot on costa near base ; a black dot in middle near base ; first and second tufts black in front, white behind ; a small black spot on costa at  $\frac{1}{3}$ , touching second tuft, whence proceeds a fine black inwards sinuate line to inner margin at  $\frac{2}{5}$  ; a double twice sinuate ill-defined blackish line from beyond middle of costa to  $\frac{3}{4}$  of inner margin ; a subdentate blackish line from costa near apex to anal angle, sharply indented outwards near costa and less strongly in middle, anteriorly suffused on upper  $\frac{2}{3}$  ; a blackish hindmarginal line, suffusedly dilated at apex : cilia blackish, irrorated with white points. Hindwings and cilia light grey.

Sydney, New South Wales ; Deloraine, Tasmania ; Mount Lofty, South Australia ; four specimens, in October, November, and March.

45. *Sor. irenica*, n. sp.

♂ ♀. 18-19 mm. Head, antennæ, and thorax white. Palpi  $4\frac{1}{2}$ -5, white, extenally sprinkled with fuscous. Abdomen and legs grey-whitish. Forewings elongate-triangular, costa slightly arched, apex round-pointed, hindmargin straight, very oblique ; white, partially thinly sprinkled with pale greyish-ochreous ; three

greyish-ochreous transverse streaks, anteriorly suffused, posteriorly well-defined; first from disc before middle to middle of costa; second from  $\frac{3}{4}$  of costa to beyond middle of inner margin; third hindmarginal, attenuated towards apex, containing an obscure white streak in lower half: cilia white, with a few greyish-ochreous points. Hindwings and cilia grey-whitish.

Mount Kosciusko (4300-5000 feet), New South Wales; three specimens, in January.

46. *Sor. paromoea*, n. sp.

♂. 15 mm. Head, antennæ, and thorax white. Palpi 4, white, externally irrorated centrally with dark fuscous. Abdomen whitish-grey. Legs grey, ringed with whitish. Forewings rather short, triangular, costa slightly arched, apex round-pointed, hindmargin almost straight, rather strongly oblique; white, partially thinly sprinkled with greyish-ochreous; first and second tufts anteriorly greyish-ochreous mixed with blackish, connected with costa by cloudy greyish-ochreous direct streaks, second also with middle of costa by an oblique streak; two greyish-ochreous transverse streaks, anteriorly suffused, posteriorly sharply defined, marked with dark grey on veins; first from  $\frac{3}{4}$  of costa to beyond middle of inner margin, second hindmarginal: cilia white, irrorated with greyish-ochreous points except on a median line. Hindwings whitish-grey; cilia white, base greyish.

Duaringa, Queensland; one specimen received from Mr. G. Barnard.

47. *Sor. vetustella*, Walk.

(*Eromene vetustella*, Walk. Suppl. 1763; *Nola strictalis*, Z., Zool. Bot. Ver. 1872, 459 pl. II, 3; *Sorocostia vetustella*, Ros., Ann. Mag. N.H. 1885, 436.)

♂ ♀. 17-19 mm. Head, antennæ, and thorax white, patagia sprinkled with fuscous. Palpi 3-3½, white, externally irrorated with dark fuscous. Abdomen whitish-grey. Legs dark fuscous, ringed with whitish, posterior pair whitish. Forewings elongate-triangular, costa gently arched, apex round-pointed, hindmargin

nearly straight, oblique; light ochreous-brown, towards base suffusedly irrorated with white, veins posteriorly blackish; tufts anteriorly blackish, posteriorly white; a rather broad irregular white subcostal streak from base to above second tuft, connecting with a narrower white streak from second tuft to below third; a fine fuscous indistinct line from  $\frac{1}{3}$  of costa to  $\frac{1}{3}$  of inner margin, curved outwards to touch second tuft, indented below middle; a straight irregular-edged white streak from costa near apex to  $\frac{2}{3}$  of inner margin, anteriorly sharply defined, posteriorly suffused, above extending to apex; a fine irregular dentate white subterminal line, touching hindmargin below middle: cilia fuscous, irrorated with white. Hindwings and cilia light grey.

Blackheath (3,500 feet) and Mount Kosciusko (4,300 feet), New South Wales; Victoria; Mount Lofty, South Australia; in January, several specimens.

48. *Sor. aulacota*, n. sp.

♂ ♀. 18-23 mm. Head, antennæ and thorax white, more or less thinly sprinkled with fuscous. Palpi  $4\frac{1}{2}$ -5, white externally irrorated with dark fuscous. Abdomen whitish. Legs dark fuscous, irrorated and ringed with white, posterior pair whitish. Forewings very elongate-triangular, costa gently arched, apex round-pointed, hindmargin somewhat rounded, very oblique; fuscous, irregularly and suffusedly irrorated with white; a suffused blackish streak beneath costa from base to middle; a fine obscure very acutely angulated transverse line of dark fuscous dots about  $\frac{1}{5}$ ; two blackish-fuscous transverse lines, acutely angulated above middle; first from middle of costa to middle of inner margin, followed by a parallel series of black dots sometimes confluent with it; second from  $\frac{3}{4}$  of costa to inner margin before anal angle, marked with black strigulae on veins, somewhat interrupted below angle; a hindmarginal series of black strigulae: cilia dark fuscous, densely irrorated with white, basal half barred with white. Hindwings and cilia grey-whitish.

Warragul, Victoria; Deloraine, Tasmania; in December, four specimens.

49. *Sor. parallacta*, n. sp.

♂ ♀. 15-18 mm. Head, antennæ, and thorax white, irrorated with grey. Palpi 4, white, externally irrorated with dark grey. Abdomen whitish-grey. Legs dark grey, ringed with whitish, posterior pair whitish. Forewings elongate-triangular, costa slightly arched, apex round-pointed, hindmargin hardly rounded, rather strongly oblique; greyish-fuscous, irrorated with white; tufts anteriorly blackish, posteriorly white; three faint irregular fuscous lines, posteriorly obscurely margined with whitish; first from  $\frac{1}{4}$  of costa to  $\frac{1}{3}$  of inner margin, angulated on second tuft; second from middle of costa to  $\frac{2}{3}$  of inner margin, angulated in middle; third from  $\frac{3}{4}$  of costa to anal angle, angulated above middle; an obscure transverse similar mark in disc between second and third; a row of obscure fuscous spots along hindmargin and apical third of costa: cilia fuscous, irrorated with white. Hindwings and cilia whitish-grey.

Mount Kosciusko (5,500 feet), New South Wales; in January, three specimens.

50. *Sor. cycota*, n. sp.

♂ ♀. 16-19 mm. Head and antennæ white, sprinkled with grey. Palpi 3, white, externally irrorated with dark fuscous. Thorax white, irrorated with grey, sometimes obscurely spotted with dark fuscous. Abdomen light grey. Legs dark grey, ringed with whitish, posterior pair grey-whitish. Forewings elongate-triangular, costa moderately arched, apex tolerably obtuse, hindmargin somewhat rounded, rather strongly oblique; grey, very finely irrorated with white, and with scattered dark fuscous scales; tufts anteriorly black, posteriorly white; three ill-defined rather irregular fine blackish lines, posteriorly obscurely margined with whitish; first from  $\frac{1}{3}$  of costa to  $\frac{1}{3}$  of inner margin, angulated on second tuft; third tuft connected with costa by a black strigula; second from  $\frac{2}{3}$  of costa to  $\frac{2}{3}$  of inner margin, upper half rather strongly curved outwards; third from  $\frac{3}{4}$  of costa to anal angle, twice irregularly sinuate, somewhat marked with blackish on



veins; a hindmarginal series of black dots: cilia grey, irrorated with white, and with scattered dark fuscous scales. Hindwings grey; cilia whitish-grey.

Thursday Island, Torres Straits (Lucas); Glen Innes (3000 feet) and Sydney, New South Wales; Melbourne, Victoria; Mount Lofty, South Australia; in August, October, and December, six specimens.

51. *Sor. arachneis*, n. sp.

♂. 22 mm. Head, palpi, and thorax white, irrorated with dark grey; palpi 2. Antennæ whitish. Abdomen whitish-grey. Legs whitish, irrorated with dark fuscous. Forewings elongate-triangular, costa moderately arched, apex obtuse, hindmargin rounded, somewhat oblique; grey, very finely irrorated with white and blackish; an oblique black strigula on costa near base; a very fine indistinct blackish line from  $\frac{1}{4}$  of costa to  $\frac{1}{3}$  of inner margin, acutely angulated outwards above and below middle; a very fine indistinct somewhat interrupted blackish line from a spot on costa before middle to beneath costa at  $\frac{3}{4}$ , thence bent parallel to hindmargin, below middle twice acutely angulated inwards; a faint darker irregular subterminal line: cilia grey, irrorated with white and blackish points. Hindwings and cilia grey-whitish.

Sydney, New South Wales; in October, one specimen.

52. *Sor. epicentra*, n. sp.

♂ ♀. 25-26 mm. Head, palpi, and antennæ white, finely sprinkled with dark fuscous; palpi  $1\frac{2}{3}$ , terminal joint thick. Thorax white, irregularly spotted with fuscous and thinly sprinkled with dark fuscous. Abdomen grey-whitish. Legs white mixed with fuscous, anterior tarsi dark fuscous ringed with whitish. Forewings elongate-triangular, costa moderately arched, apex rounded, hindmargin rather obliquely rounded; white, irrorated with pale ochreous-grey, and a few scattered black scales; tufts anteriorly light ochreous-grey, posteriorly white; a

fine black transverse line near base before first tuft, sometimes nearly obsolete; a fine black anteriorly white-margined line from  $\frac{1}{4}$  of costa to  $\frac{1}{3}$  of inner margin, rather strongly curved outwards, indented in middle; a short fine blackish strigula from costa before middle to third tuft; second line double, fine, blackish, outer more dotted, posteriorly white-margined, included space light ochreous-grey, from  $\frac{2}{3}$  of costa to  $\frac{2}{3}$  of inner margin, forming a rounded almost rectangular bend in middle, indented inwards beneath middle; a small round blackish spot near hindmargin beneath apex, connected obliquely with costa by two blackish dots; two blackish dots before hindmargin about middle; a short blackish erect strigula from anal angle; a hindmarginal series of round black dots: cilia white, irrorated with pale ochreous-grey, faintly barred. Hindwings and cilia grey-whitish; a grey hindmarginal line.

Sydney, New South Wales; two specimens (Coll. Masters).

53. *Sor. leucoma*, n. sp.

♂ ♀. 13-14 mm. Head and antennæ white. Palpi 2, white, thinly sprinkled with black. Thorax white, sometimes with a few black points. Abdomen whitish-grey. Legs white, more or less irrorated with black, tarsi blackish with white rings. Forewings rather elongate-triangular, costa moderately arched, apex obtuse, hindmargin obliquely rounded; ochreous-white, posteriorly more ochreous-tinged, more or less suffused with whitish-grey, with a few scattered black points; tufts very large, pale grey; a short thick direct black strigula from costa near base before first tuft; a black dot on costa at  $\frac{1}{4}$ ; two parallel approximated cloudy blackish lines from costa beyond middle to  $\frac{3}{4}$  of inner margin, acutely angulated outwards above middle; a very irregular somewhat curved cloudy blackish line from  $\frac{4}{5}$  of costa to anal angle: cilia light grey irrorated with white, basal half irrorated with black. Hindwings and cilia in ♂ whitish-grey, in ♀ somewhat darker.

Sydney, New South Wales; in October, three specimens.

## 20. NOLA, Leach.

Face with projecting scales ; tongue absent. Antennæ in ♂ unequally bipectinated, towards apex simple, basal joint somewhat tufted. Palpi moderate, porrected or ascending, loosely rough-scaled beneath, terminal joint rather short, obtuse. Forewings with tufts of scales on surface ; 2 from about  $\frac{4}{5}$ , 7 out of 8 near base, 9 and 10 out of 8. Hindwings with veins 3 and 4 stalked, 6 and 7 stalked, 8 from before middle.

54. *Nol. lugens*, Walk.

(*Uraba lugens*, Walk. Tort. 449 ; *Coesa viduella*, ib. Suppl. 1729 ; *Toxoloma australe*, Feld., Reis. Nov. pl. C, 16.)

♂ ♀. 23-26 mm. Head, palpi, antennæ, thorax, and legs dark fuscous, irrorated with white. Abdomen grey. Forewings elongate-triangular, costa moderately arched, apex obtuse, hindmargin obliquely rounded ; fuscous irregularly irrorated with dark fuscous and whitish ; a fine black anteriorly whitish-edged line from  $\frac{1}{3}$  of costa to middle of inner margin, rather curved, slightly indented above middle and near inner margin ; a slightly curved cloudy black streak from middle of costa to  $\frac{2}{3}$  of inner margin, followed by an additional tuft in disc ; a fine blackish posteriorly obscurely whitish-edged line from  $\frac{3}{5}$  of costa to inner margin before anal angle, somewhat indented outwards in middle and near inner margin ; an obscure cloudy fuscous sinuate line from  $\frac{2}{3}$  of costa to anal angle, often obsolete ; three darker fuscous dots on costa posteriorly ; an irregular twice strongly sinuate partially interrupted cloudy dark fuscous line from costa near apex to anal angle : cilia fuscous irrorated with white. Hindwings and cilia fuscous-grey, with a darker hindmarginal line.

Cooktown, Queensland ; Melbourne, Victoria ; Mount Lofty, South Australia ; several specimens.

55. *Nol. metallopa*, n. sp.

♂. 19 mm. Head white, with a few fuscous scales. Palpi fuscous. Antennæ whitish. Thorax fuscous, mixed with white

and dark fuscous. Abdomen whitish-grey. Legs fuscous, posterior pair whitish. Forewings triangular, costa moderately arched, apex obtuse, hindmargin almost straight, rather oblique; white, partially irregularly suffused with whitish-fuscous; a metallic brassy-fuscous triangular spot on costa near base; two very fine irregular somewhat curved dark fuscous lines, first from  $\frac{1}{3}$  of costa to middle of inner margin, second from beyond middle of costa to  $\frac{4}{5}$  of inner margin, included space suffused with metallic brassy-fuscous, darker towards costa, and with a cloudy blackish-fuscous irregular median streak becoming obsolete beneath; a fine irregular fuscous line from  $\frac{3}{4}$  of costa to anal angle, angulated above middle; a hindmarginal row of fuscous dots: cilia fuscous, irrorated with white. Hindwings and cilia light grey.

Sydney, New South Wales; also from Victoria; in September and March; two specimens taken by Mr. G. H. Raynor. Closely allied to the European *N. albula*, Hb.

## 21. MOSODA, Walk.

Tongue well-developed. Antennæ in ♂ serrate, moderately strongly ciliated ( $1-1\frac{1}{2}$ ). Palpi moderate, arched, ascending, filiform or somewhat rough-scaled beneath, terminal joint moderate or short, tolerably pointed. Forewings with vein 2 from  $\frac{3}{4}$ , 3 and 4 separate or rarely stalked, 8 and 9 out of 7. Hindwings with vein 4 absent, 6 and 7 stalked, 8 from  $\frac{1}{3}$ .

### A. Hindwings with postmedian darker fascia.

- a. Thorax anteriorly blackish.....59. *ophiodes*.
- b. „ „ white.....60. *sejuncta*.

### B. Hindwings without postmedian fascia.

- a. Hindwings grey.....61. *servilis*.
- b. „ „ yellow.
- 1. Forewings yellow.....56. *jucunda*.
- 2. „ „ dark fuscous.
- i. Basal joint of palpi black.....58. *consolatrix*.
- ii. „ „ „ whitish-ochreous..57. *anartoides*.

Sect. A. Forewings with veins 3 and 4 stalked.

56. *Mos. jucunda*, Walk.

(*Pallene jucunda*, Walk. Bomb. 543; *Tospitis transitana*, ib. Tort. 430).

♂ ♀. 16-19 mm. Head, palpi, and antennæ ochreous-yellow. Thorax ochreous-yellow, posterior half black. Abdomen dark fuscous, apex and undersurface yellow. Legs ochreous-yellow, anterior pair and all tarsi suffused with dark fuscous above. Forewings elongate-triangular, costa moderately arched, apex obtuse, hindmargin oblique, nearly straight; ochreous-yellow; base narrowly black; two narrow somewhat irregular nearly straight black fasciæ, first from  $\frac{1}{3}$  of costa to middle of inner margin, second from  $\frac{3}{4}$  of costa to anal angle: cilia ochreous-yellow, with a small grey spot on anal angle. Hindwings light ochreous-yellow; a moderate blackish hindmarginal fascia, on upper half leaving a slender marginal streak of groundcolour, attenuated near anal angle: cilia pale ochreous-yellow, on lower half of hindmargin grey on basal half.

Duaringa and Gayndah, Queensland; Sydney, New South Wales; in November, not uncommon.

Sect. B. Forewings with veins 3 and 4 separate.

57. *Mos. anartoides*, Walk.

(*Mosoda anartoides*, Walk. Suppl. 1900.)

♂ ♀. 22-24 mm. Head black, slightly mixed with whitish-ochreous. Antennæ black, basal joint with a whitish-ochreous posterior spot. Abdomen black, anal tuft light yellow-ochreous. Legs dark fuscous ringed with whitish-ochreous, posterior tibiæ whitish-ochreous. Forewings elongate-triangular, costa gently arched, apex obtuse, hindmargin rather obliquely rounded; blackish-fuscous, thinly sprinkled with ochreous-whitish; three very irregularly dentate transverse lines formed by a denser ochreous-whitish irroration, margins appearing darker through absence of irroration first before  $\frac{1}{4}$ , second from  $\frac{2}{5}$  of costa to middle of inner



margin, third from a small ochreous-white spot on costa at  $\frac{3}{4}$  to anal angle ; a small ochreous-white discal spot at  $\frac{2}{3}$  ; an ochreous-white dot on costa before apex, a small spot with dot on each side on hindmargin above middle, and a small spot beneath which are two dots on hindmargin below middle : cilia blackish, with slender ochreous-white bars, tips suffused with whitish-ochreous. Hindwings bright orange ; a very irregular black hindmarginal fascia, forming a moderately large irregular spot at apex and another above anal angle, connected on middle of hindmargin by a slender line only ; cilia blackish.

Larva feeds on lichens on rock-faces.

Sydney, New South Wales ; common in August, at rest on rocks.

58. *Mos. consolatrix*, Ros.

(*Mosoda consolatrix*, Ros. Ann. Mag. N.H. 1885, 381.)

♂ ♀. 21-25 mm. Differs from *M. anartoides* only as follows : Head with sides and front of crown whitish. Palpi wholly black. Patagia white towards apex. Forewings somewhat lighter, ochreous-whitish lines more pronounced, especially second towards costa. Hindwings with lower black spot of hindmargin reduced to a thin marginal streak.

Bathurst (2,300 feet) and Mount Kosciusko (4,700 feet), New South Wales ; also from Victoria ; in November and January, several specimens.

59. *Mos. ophiodes*, n. sp.

♂. 25 mm. Head ochreous-whitish. Palpi black. (Antennæ broken.) Thorax blackish, posterior half suffusedly ochreous-whitish. Abdomen ochreous-yellowish. Legs black, banded with whitish-ochreous, posterior pair yellowish. Forewings elongate-triangular, costa moderately arched, slightly sinuate, apex rounded, hindmargin obliquely rounded ; white, with a few minute scattered black scales ; two straight subdentate cloudy blackish lines towards base, not reaching inner margin ; first and second lines

thick, dentate, black, included space suffused with blackish except an 8-shaped whitish black-margined discal spot, followed by a small white spot; first from  $\frac{2}{5}$  of costa to  $\frac{3}{5}$  of inner margin, irregularly sinuate; second from  $\frac{2}{3}$  of costa to  $\frac{4}{5}$  of inner margin, irregular, forming a broadly quadrangular bend outwards above middle, beneath parallel to first; a cloudy blackish dentate subterminal line, widely interrupted above and below middle: cilia whitish-ochreous, closely barred with blackish, bars becoming obsolete towards anal angle. Hindwings ochreous-yellow; apex and a cloudy line at  $\frac{3}{4}$  parallel to hindmargin dark fuscous; cilia light yellow-ochreous, towards apex dark fuscous at base.

Victoria; one specimen (Coll. Lucas.)

60. *Mos. sejuncta*, Feld.

(*Pitane sejuncta*, Feld., Reis. Nov. pl. CXL, 24.)

♂ ♀. 16-17 mm. Head white. Palpi and antennæ black. Thorax white, patagia and a central transverse stripe dark fuscous. Abdomen dark fuscous, anal tuft whitish-ochreous. Legs whitish-ochreous; anterior pair dark fuscous above. Forewings elongate-triangular, costa rather strongly arched, apex obtuse, hindmargin oblique, hardly rounded; rather dark brown; a rather broad straight ochreous-white fascia about  $\frac{1}{4}$ , slightly dilated beneath; a narrow irregular ochreous-white fascia from  $\frac{2}{3}$  of costa to  $\frac{3}{4}$  of inner margin, dilated towards costa, rather indented inwards above and below middle; a small oblique white discal spot preceding and often connected with second fascia; sometimes a white suffusion forming a hindmarginal fascia: cilia whitish-ochreous, with a fuscous spot at apex and another on middle of hindmargin. Hindwings in ♂ with a subcostal furrow; whitish-ochreous; two cloudy fuscous parallel fasciæ, first rather narrow, somewhat beyond middle, second broader, hindmarginal, interrupted above anal angle; cilia whitish-ochreous, round apex and on a spot above middle light fuscous.

Sydney, New South Wales; also from Victoria; from May to August, in October, November, and March; common.

61. *Mos. servilis*, n sp.

♂. 16-20 mm. Head and thorax grey sprinkled with white, thorax with a white posterior spot. Palpi and antennæ dark fuscous. Abdomen whitish-ochreous, towards base greyish. Legs dark grey, ringed with whitish, posterior pair whitish. Forewings very elongate-triangular, costa moderately arched, apex rounded, hindmargin very obliquely rounded; grey, irrorated with white, sometimes wholly suffused with white except basal patch and median band; three blackish very irregular dentate transverse lines; first near base, margined posteriorly with white; second from  $\frac{1}{3}$  of costa to  $\frac{1}{3}$  of inner margin, margined anteriorly with white; third from  $\frac{2}{5}$  of costa to beneath costa at  $\frac{4}{5}$ , thence bent parallel to hindmargin, below middle with a very long acute indentation, running to inner margin at  $\frac{3}{4}$ ; a white transverse discal spot at  $\frac{2}{3}$ ; a white hindmarginal line: cilia dark fuscous barred with white, becoming whitish towards tips. Hindwings and cilia light grey.

Toowoomba (2,000 feet), Queensland; Sydney, New South Wales; Melbourne, Victoria; in October and December, at rest on tree-trunks; five specimens.

22. *SCAEODORA*, n.g.

Tongue well-developed. Antennæ in ♂ filiform, moderately ciliated (1). Palpi moderate, somewhat ascending, filiform, terminal joint short, pointed. Forewings with vein 2 from beyond middle, 7 and 8 stalked, 9 and 10 stalked. Hindwings with veins 6 and 7 long-stalked, 8 from immediately before transverse vein.

62. *Scae. omophanes*, n. sp.

♂. 14 mm. Head, palpi, antennæ, thorax, abdomen, and legs light reddish-fuscous, with a few whitish scales. Forewings elongate-triangular, costa slightly arched, apex obtuse, hindmargin rather obliquely rounded; light reddish-fuscous, thinly scaled; base darker; a dark fuscous somewhat curved line from about  $\frac{1}{3}$  of costa to middle of inner margin; a small transverse dark fuscous

discal spot at  $\frac{3}{5}$ ; a dark fuscous line from  $\frac{3}{4}$  of costa to  $\frac{3}{4}$  of inner margin, slightly angulated in middle, somewhat sinuate on upper half; cilia light reddish-fuscous, barred with dark fuscous. Hindwings and cilia light fulvous, thinly scaled.

Melbourne, Victoria; one specimen, in poor condition (Coll. Lucas).

### 23. CHIRIPHE, Walk.

Tongue well-developed. Antennæ in ♂ filiform, strongly ciliated ( $1\frac{1}{2}$ -2). Palpi moderate, loosely scaled, somewhat ascending, terminal joint moderate, pointed. Forewing with vein 2 from  $\frac{2}{3}$ , 4 and 5 stalked, 8 and 9 out of 7, 10 out of 7 or separate or absent. Hindwings with veins 3 and 4 stalked, 5 separate or out of 3, 6 and 7 stalked, 8 from middle.

#### A. Hindwings with darker hindmarginal

band.....65. *procrena*.

#### B. Hindwings without darker hindmarginal band.

##### a. Forewings with complex transverse lines.

##### 1. Second bar from inner margin

reaching costa.....68. *dictyota*.

##### 2. Second bar from inner margin not

reaching costa.....67. *dichotoma*.

##### b. Forewings without complex lines.

##### 1. Forewings with two white fasciæ.

i. Face and palpi fuscous.....64. *catarrhoa*.

ii. „ „ whitish.....63. *stenopa*.

##### 2. Forewings with a single posterior

fascia.....66. *monogrammaria*.

### 63. *Chir. stenopa*, n. sp.

♂. 17 mm. Head and palpi dull whitish. Antennæ pale fuscous. Thorax fuscous, becoming whitish behind. Abdomen grey. Legs whitish, anterior and middle pair fuscous above. Forewings elongate, suboblong, slightly dilated, costa gently

arched, apex rounded, hindmargin rather obliquely rounded ; fuscous, irregularly irrorated with white ; two very irregular moderately broad white fasciæ, margined with dark fuscous ; first from  $\frac{1}{3}$  of costa to  $\frac{2}{5}$  of inner margin, shortly curved inwards below middle ; second from  $\frac{2}{3}$  of costa to  $\frac{4}{5}$  of inner margin, inner edge with a bidentate indentation in middle and a bidentate projection beneath it, outer edge tolerably straight ; a whitish apical spot, and another on hindmargin above middle, tending to coalesce : cilia whitish, base spotted with fuscous ; vein 10 absent. Hindwings pale brownish, towards base tinged with whitish-ochreous ; cilia whitish ; veins 4 and 5 out of 3, 6 and 7 very long-stalked.

Albany, West Australia ; one specimen (Australian Museum).

64. *Chir. catarrhoa*, n. sp.

♂. 14 mm. Head white, face, palpi, and antennæ fuscous. Thorax fuscous, with a white anterior spot. Abdomen fuscous, sprinkled with whitish-ochreous. Forewings rather elongate-triangular, costa slightly arched, apex rounded, hindmargin rather oblique, slightly rounded ; fuscous, thinly irrorated with white ; an outwards-curved transverse whitish line rather near base, tending to be suffused into first fascia ; a narrow straight white fascia from  $\frac{2}{5}$  of costa to  $\frac{2}{5}$  of inner margin, anterior edge suffused, posterior edge subdentate, margined with darker fuscous ; a somewhat broader white dark-margined fascia from  $\frac{3}{4}$  of costa to inner margin before anal angle, irregular, somewhat inwards-curved, forming two abrupt rounded projections inwards above and below middle, central portion tridentate : cilia white, barred with fuscous ; vein 10 separate. Hindwings fulvous ; cilia whitish, obscurely barred with pale fulvous ; vein 5 separate.

Albany, West Australia ; one specimen (Australian Museum).

65. *Chir. procrena*, n. sp.

♂. 15-16 mm. Head ochreous-white, centre of crown greyish-tinged, face, palpi, and antennæ dark fuscous. Thorax dark fuscous, collar and anterior and posterior almost confluent spots



suffusedly white. Abdomen dark grey, anal tuft yellowish. Legs dark grey, posterior pair yellowish. Forewings elongate-triangular, costa slightly arched, apex obtuse, hindmargin obliquely rounded; dark fuscous, towards inner and hind margins irregularly irrorated with white; a moderate somewhat irregular downwards-curved white streak from middle of base to middle of costa, connected with costa at  $\frac{1}{4}$  by an inwardly oblique bar; a slender irregular white fascia from  $\frac{3}{4}$  of costa to  $\frac{3}{4}$  of inner margin, dilated into a spot on costa, indented above middle and near inner margin, and with a projection inwards above middle containing a dark fuscous dot; the white irroration tends to form an indistinct spot on middle of hindmargin and another above anal angle: cilia pale whitish-fuscous, basal half dark fuscous barred with white; vein 10 separate. Hindwings orange; a rather dark greyish-fuscous moderately broad hindmarginal band, rather narrowed beneath; cilia ochraceous-grey-whitish, basal half dark grey; vein 5 separate.

Deloraine, Tasmania; three specimens in December.

66. *Chir. monogrammaria*, Walk.

(*Chiriphe monogrammaria*, Walk. Geom. 1692.)

♂ ♀. 13-20 mm. Head, thorax, and abdomen fulvous, head, collar, and anal tuft sometimes whitish. Palpi, antennæ, and legs dark grey, posterior legs whitish-ochreous. Forewings elongate-triangular, costa slightly arched, apex obtuse, hindmargin rather obliquely rounded; fulvous; a somewhat irregular straight white line from  $\frac{3}{4}$  of costa to inner margin before anal angle: cilia fulvous, tips often whitish; vein 10 separate or out of 7. Hindwings and cilia fulvous; vein 5 separate.

Glen Innes (3,000 feet) and Sydney, New South Wales; from August to January, in March, and May; common, frequenting pastures, flying in the afternoon sun.

67. *Chir. dichotoma*, n. sp.

♂ ♀. 14-16 mm. Head white. Palpi and antennæ dark fuscous. Thorax white, patagia and posterior margin dark fuscous. Abdomen grey, anal tuft whitish-ochreous. Legs white,

anterior pair dark fuscous internally. Forewings elongate, moderately dilated, costa gently arched, apex obtuse, hindmargin obliquely rounded; white, markings rather dark fuscous; a streak along basal fourth of costa, extending at base to inner margin and produced shortly along it; a sinuate streak from costa beyond middle to  $\frac{2}{3}$  of inner margin, connected in disc by a bar with apex of costal streak; a short erect streak from inner margin at  $\frac{2}{3}$ , not reaching half across wing; a nearly straight streak from costa before apex to anal angle, connected in disc by a bar with costal extremity of first transverse streak, and confluent at apex with an irregular streak along upper  $\frac{2}{3}$  of hindmargin: cilia white; vein 10 separate. Hindwings and cilia fulvous; vein 5 separate.

Sydney, New South Wales; also from Victoria; three specimens.

68. *Chir. dictyota*, n. sp.

♂. 14 mm. Head whitish-ochreous. Palpi and antennæ dark fuscous. Thorax whitish-ochreous, patagia and posterior margin dark fuscous. Abdomen ochreous-whitish. Legs whitish-ochreous, anterior pair dark fuscous internally. Forewings elongate, moderately dilated, costa gently arched, apex obtuse, hindmargin obliquely rounded; ochreous-white; markings blackish; a streak along basal third of costa, near apex toothed beneath, extending at base to inner margin and produced shortly along it; a rather irregular sinuate streak from beyond middle of costa to  $\frac{2}{5}$  of inner margin, confluent on costa with a second streak which is sharply angulated outwards on median third and runs to inner margin at  $\frac{2}{3}$ ; a nearly straight rather irregular streak from costa before apex to anal angle, touching angulation of second transverse streak, confluent at apex with an irregular streak along upper  $\frac{2}{3}$  of hindmargin: cilia ochreous-white; vein 10 separate. Hindwings rather light fuscous-grey, towards base tinged with whitish-ochreous; cilia whitish-ochreous; vein 5 separate.

Toowoomba (2,000 feet), Queensland; one specimen in December.

## 24. HESTIARCHA, n. g.

Tongue rudimentary. Antennæ in ♂ moderately bipectinated throughout. Palpi very short, filiform, drooping. Forewings with vein 2 from  $\frac{3}{4}$ , 3 and 4 stalked, 5 and 6 absent, 7 and 8 out of 9. Hindwings with veins 4, 5, 6, and transverse vein absent.

69. *Hest. pyrrhopa*, n. sp.

♂. 13-15 mm. Head, palpi, antennæ, thorax, abdomen, and legs ochreous-brown. Forewings very elongate-triangular, costa hardly arched, apex rounded, hindmargin obliquely rounded; wholly ochreous-brown. Hindwings bright orange; a rather narrow dark fuscous hindmarginal band; cilia dark fuscous.

Port Lincoln, South Australia; four specimens in November.

## 25. THALLARCHA, n. g.

Tongue well-developed. Antennæ in ♂ moderately bipectinated throughout. Palpi moderate, slender, ascending, with appressed scales, terminal joint moderate, somewhat pointed. Forewings with vein 2 from middle, 8 and 9 out of 7. Hindwings with veins 6 and 7 stalked, 8 from middle.

A. Forewings ochreous-yellow.....73. *chrysochares*.

B. „ not „

a. Hindwings with grey discal dot.....72. *albicollis*.

b. „ without discal dot.

1. Collar white.....71. *phaedropa*.

2. „ dark fuscous.....70. *phalarota*.

70. *Thall. phalarota*, n. sp.

♂. 16-18 mm. Head ochreous-white, face, palpi, antennæ, thorax, and abdomen dark fuscous, anal tuft yellowish. Legs dark fuscous, ringed with yellowish, posterior pair pale yellowish. Forewings elongate-triangular, costa somewhat sinuate, posteriorly moderately arched, apex rounded, hindmargin obliquely rounded;

dark fuscous; an ochreous-white moderately broad transverse spot from inner margin at  $\frac{1}{4}$ , reaching  $\frac{2}{3}$  across wing; a rather narrow somewhat inwards-curved white fascia from  $\frac{3}{5}$  of costa to  $\frac{3}{4}$  of inner margin, more or less interrupted in middle: cilia dark fuscous, a dot above apex and a moderately broad space beneath apex white. Hindwings bright orange; a dark fuscous triangular apical blotch, connected with a slender dark fuscous streak along hindmargin to anal angle; cilia dark fuscous.

Sydney, New South Wales; Beechworth, Victoria; in August, November, and March, four specimens.

71. *Thall. phaedropa*, n. sp.

♀. 14-16 mm. Head and collar white, face, palpi, antennæ, and thorax dark fuscous. Abdomen yellowish, mixed with dark fuscous. Legs dark fuscous ringed with yellowish, posterior pair yellowish. Forewings elongate-triangular, costa gently arched, apex round-pointed, hindmargin somewhat sinuate, oblique; dark fuscous; a broad white fascia from inner margin about  $\frac{1}{4}$ , not reaching costa, upper side near and parallel to it; a moderately broad somewhat inwards-curved white fascia from  $\frac{3}{4}$  of costa to anal angle, outer edge broadly indented and sometimes interrupted in middle; a small inwardly oblique triangular white spot on costa before apex; a small elongate white spot on hindmargin above middle: cilia dark fuscous, with white spots above apex and above anal angle, and a white space below apex. Hindwings orange, with a triangular dark fuscous apical blotch; cilia dark fuscous.

Sydney, New South Wales; two specimens in October.

72. *Thall. albicollis*, Feld.

(*Pitane albicollis*, Feld., Reis. Nov. pl. CXL, 37.)

♂. 19-22 mm. Head white, lower half of face and palpi dark fuscous. Antennæ fuscous. Thorax dark fuscous, collar, an anterior dorsal spot, and apex of patagia white. Abdomen pale ochreous-yellow. Legs dark fuscous, posterior pair yellowish. Forewings elongate, suboblong, somewhat dilated, costa moderately

arched, apex round-pointed, hindmargin straight, rather strongly oblique; white; a dark fuscous dot on base of costa; a narrow somewhat outwards-curved dark fuscous fascia from  $\frac{1}{3}$  of costa to  $\frac{2}{5}$  of inner margin, and a narrow inwards-curved ochreous-brown fascia from middle of costa to beyond middle of inner margin, touching in disc; a suboval transverse dark fuscous spot in disc at  $\frac{4}{5}$ , connected with costa at  $\frac{3}{4}$  and inner margin before anal angle by fine dark fuscous lines, followed by a narrow cloudy white line, beyond which the apical space is wholly dark fuscous, except a short oblique narrow white apical spot, and a small white spot on hindmargin below middle: cilia dark fuscous, white opposite white markings. Hindwings light ochreous-yellow; a discal dot at  $\frac{2}{3}$  and a small apical spot grey; cilia pale ochreous-yellow.

Sydney, New South Wales; Mount Lofty, South Australia; three specimens.

73. *Thall. chrysochaeres*, n. sp.

♂. 17 mm. Head deep ochreous-yellow, face, palpi, and antennæ dark fuscous. Thorax blackish, collar, an anterior dorsal spot, and apex of patagia ochreous-yellow. Abdomen dark fuscous, anal tuft ochreous-yellow. Legs dark fuscous, posterior pair ochreous-yellow. Forewings elongate, somewhat dilated, costa slightly arched, apex obtuse, hindmargin rounded, rather strongly oblique; deep ochreous-yellow; a small black spot on base of costa; a rather narrow black fascia from before middle of costa to beyond middle of inner margin, anterior edge with a short tooth near inner margin; apical space beyond a straight line from  $\frac{2}{3}$  of costa to anal angle blackish, containing a small ochreous-yellow spot on costa near anterior edge, another at apex, and a third on middle of hindmargin: cilia dark fuscous, opposite spots ochreous-yellow. Hindwings ochreous-yellow; a cloudy dark fuscous discal dot at  $\frac{3}{4}$ ; a rather narrow dark fuscous hindmarginal fascia, interrupted in middle; cilia dark fuscous, with a yellow spot on middle of hindmargin.

New South Wales; one specimen.



## 26. COMARCHIS, n. g.

Tongue well-developed. Antennæ in ♂ serrate or slenderly dentate, ciliated with fascicles, or filiform, evenly ciliated. Palpi moderate or rather short, porrected, slender, with appressed scales, terminal joint moderate, somewhat pointed. Forewings with vein 2 from middle, 8 and 9 out of 7. Hindwings with veins 6 and 7 stalked, 8 from middle.

## A. Hindwings with a discal dot or spot.

a. Costa of forewings without black streak...81. *sparsana*.

b. „ „ with strong blackish streak towards base.

1. Forewings without discal dot.....80. *staurocola*.

2. „ „ with separate black discal dot,

i. Costal blackish streak reaching to middle .....74. *isophragma*.

ii. Costal blackish streak not beyond  $\frac{1}{4}$ .

\*. Hindwings with hindmargin blackish to near anal angle ...75. *chrysochoa*.

\*\*. Hindwings with hindmargin not black below middle .....76. *jocularis*.

## B. Hindwings without discal marking.

a. Base of forewings narrowly dark fuscous...82. *aspectatella*.

b. „ „ not „ „

1. Thorax posteriorly black.....77. *tineoides*.

2. „ „ white.

i. Second fascia divided into two parallel lines .....79. *oblita*.

ii. Second fascia entire .....78. *lochaga*.

Sect. A. Antennæ of ♂ slenderly dentate or serrate, ciliated with long fascicles.

74. *Com. isophragma*, n. sp.

♂ ♀. 22-23 mm. Head dark grey, sides of crown whitish-ochreous. Palpi dark grey, lower longitudinal half whitish-ochreous. Antennæ dark grey, towards base whitish-ochreous,

in ♂ slenderly bidentate. Thorax dark grey mixed with white. Abdomen whitish-ochreous. Legs dark fuscous, posterior pair whitish-ochreous except base of tarsal joints. Forewings elongate, moderately dilated, costa gently arched, apex obtuse, hindmargin very obliquely rounded; white; markings blackish-grey; a broad costal streak from base to  $\frac{2}{3}$ , narrowed at base; a black dot in disc at  $\frac{1}{4}$ , touching this; a smaller black dot on fold obliquely before first, touching apex of a slender dorsal streak from base; lines white, subdentate, margined on both sides with blackish-grey, somewhat angulated outwards above middle; first from  $\frac{2}{5}$  of costa to  $\frac{2}{5}$  of inner margin, second from  $\frac{4}{5}$  of costa to  $\frac{4}{5}$  of inner margin, connected by a broad grey dorsal suffusion; outer margin of second forming a triangular spot on costa; a black discal dot at  $\frac{2}{3}$ ; a narrow hindmarginal streak containing a series of white dots, with a slight suffused dilation beneath apex: cilia grey, becoming paler towards tips. Hindwings whitish-ochreous; a small oval discal spot at  $\frac{2}{3}$ , and a cloudy apical blotch touching it above grey; cilia whitish-ochreous.

Launceston, Tasmania; two specimens in November.

75. *Com. chrysochoa*, n. sp.

♂ ♀. 21-25 mm. Head black, front of crown white. Palpi black. Antennæ black, in ♂ slenderly bidentate. Thorax black, posterior margin of collar, a spot on each side of back, and apex of patagia ochreous-white. Abdomen ochreous-yellow, base blackish. Legs blackish, posterior tibiæ ochreous-yellow. Forewings very elongate-triangular, costa slightly arched, apex obtuse, hindmargin obliquely rounded; bright orange; a black costal streak from base to  $\frac{1}{5}$ , toothed at base; a slender irregular curved black fascia from apex of costal streak to  $\frac{1}{4}$  of inner margin, attenuated and interrupted near inner margin; a narrow irregular slightly curved black fascia from before middle of costa to middle of inner margin, dilated into a triangular spot on costa; a small round discal spot at  $\frac{2}{3}$ ; a black dot on costa at  $\frac{2}{3}$ ; a short irregular erect black streak from inner margin before anal angle, more or less dilated above; a black apical blotch, its anterior edge running

from  $\frac{3}{4}$  of costa to anal angle, irregularly concave above and projecting below middle, more or less distinctly whitish-margined, containing a roundish white spot before apex and a somewhat double white spot before hindmargin in middle: cilia blackish with white spots above apex and on middle of hindmargin, and an orange spot below anal angle. Hindwings orange; a small black discal spot at  $\frac{2}{3}$ ; a blackish hindmarginal fascia, moderately broad but attenuated beneath on upper half of hindmargin, very narrow on lower half and not reaching anal angle; cilia blackish, on anal angle and inner margin orange.

Mount Kosciusko (4,000-4,500 feet), New South Wales; in January, six specimens.

76. *Com. jocularis*, Ros.

(*Mosoda jocularis*, Ros., Ann. Mag. N.H. 1885, 381, pl. XI, 6.)]

♂ ♀. 16-21 mm. Differs from *C. chrysochoa* only as follows: Antennæ of ♂ triangularly serrate. Forewings ochreous-yellow or whitish-ochreous, inner margin more orange; erect streak before anal angle not nearly reaching inner margin; spots of apex and hindmargin and of cilia light ochreous-yellow. Hindwings with hindmarginal fascia not extending along lower half of hindmargin.

Sydney and Bathurst, New South Wales; in June, August, September, November, and March, common; appears to frequent *Acacia decurrens*.

77. *Com. tineoides*, Feld.

(*Eutane tineoides*, Feld., Reis. Nov. pl. CVI, 15; *Pitane amantla* ib. pl. CXL, 36.)

♀. 18 mm. Head yellowish-white, face, palpi, and antennæ dark fuscous. Thorax dark fuscous, collar and extreme apex of patagia yellowish-white. Abdomen light yellowish, segments grey towards base. Legs pale yellowish, anterior pair dark fuscous internally. Forewings very elongate-triangular, costa gently arched, apex obtuse, hindmargin obliquely rounded; whitish-ochreous, yellowish-tinged; markings blackish-fuscous; a slender streak along basal fourth of costa; a slender fascia from apex of

this to  $\frac{1}{3}$  of inner margin, finely attenuated near inner margin; a moderate rather irregular straight fascia from middle of costa to beyond middle of inner margin; a similar rather broader fascia from  $\frac{3}{4}$  of costa to anal angle, connected above middle by a thick bar with an elongate spot on apical third of hindmargin: cilia white, opposite dark markings dark fuscous. Hindwings ochreous-yellow; a dark grey apical spot, reaching to near middle of hindmargin; cilia ochreous-yellow, towards apex dark grey.

Bathurst, New South Wales; Melbourne, Victoria; in November, three specimens.

78. *Com. lochaga*, n. sp.

♀. 21 mm. Head white, face, palpi, and antennæ dark fuscous. Thorax white, with a blackish transverse median band. Abdomen whitish-ochreous. Legs grey, posterior pair whitish-ochreous. Forewings very elongate-triangular, costa gently arched, apex obtuse, hindmargin obliquely rounded; ochreous-white; costal edge very slenderly dark fuscous towards base; markings dark fuscous; a narrow somewhat curved fascia from  $\frac{1}{4}$  of costa to  $\frac{1}{3}$  of inner margin; a moderate somewhat irregular fascia from middle of costa to  $\frac{2}{3}$  of inner margin, mixed with ochreous below middle, connected with first fascia in disc by a broad whitish-ochreous bar; a moderate somewhat irregular fascia from  $\frac{4}{5}$  of costa to hindmargin above anal angle, connected above middle by a thick bar with an elongate spot on apical third of hindmargin: cilia white, on dark markings grey on basal half. Hindwings whitish-ochreous; a grey apical spot; cilia whitish-ochreous.

Sydney, New South Wales; one specimen in October.

79. *Com. oblita*, Feld.

(*Pitane oblita*, Feld. Reis. Nov. pl. CXL, 23.)

♂ ♀. 21-23. Head white, face more or less fuscous. Palpi dark fuscous. Antennæ dark fuscous, in ♂ slenderly bidentate. Thorax white, with a blackish transverse irregular median band. Abdomen whitish-ochreous, anal tuft ochreous-yellow. Legs dark

grey, posterior pair pale ochreous-yellowish. Forewings very elongate-triangular, costa gently arched, apex obtuse, hindmargin slightly rounded, oblique; ochreous-white; costal edge slenderly black towards base; an irregular curved slender black fascia from  $\frac{1}{4}$  of costa to  $\frac{1}{3}$  of inner margin, sometimes not reaching inner margin; two parallel approximated somewhat irregular straight blackish lines from about middle of costa to beyond middle of inner margin, second dilated towards costa and broadly interrupted above middle; a deep yellow-ochreous oblong blotch in disc below middle, extending from first fascia to second of these lines; a black dot on costa before  $\frac{3}{4}$ ; a very irregular narrow blackish fascia from  $\frac{4}{5}$  of costa to hindmargin above anal angle, almost or quite interrupted below costa, where it forms a triangular spot, projecting inwards below middle, connected above middle by a bar with an elongate spot on apical third of hindmargin: cilia whitish-ochreous, beneath apex rather broadly blackish towards base. Hindwings whitish-ochreous; a grey apical spot; cilia whitish-ochreous.

Mount Kosciusko (2,800-4,700 feet), New South Wales; in January, six specimens.

80. *Com. staurocola*, n. sp.

♂ ♀. 18-19 mm. Head white, face and palpi dark fuscous. Antennæ dark fuscous, in ♂ slenderly bidentate. Thorax white, with a dark fuscous transverse irregular median band. Abdomen whitish-ochreous, anal tuft ochreous-yellow. Legs dark fuscous, posterior pair yellowish. Forewings very elongate-triangular, costa gently arched, apex round-pointed, hindmargin almost straight, rather strongly oblique; white; a narrow dark fuscous streak along basal third of costa; a somewhat curved irregular dark fuscous line from apex of this to  $\frac{1}{3}$  of inner margin; a moderate irregular inwards-curved fuscous fascia, mixed and margined with dark fuscous, from  $\frac{2}{3}$  of costa to  $\frac{3}{4}$  of inner margin, touching first transverse line in disc, posteriorly with a projection below middle; costa from first line to median fascia narrowly pale ochreous; a



triangular dark fuscous spot on costa near apex, touching a trapezoidal dark fuscous blotch extending along hindmargin from below apex to above anal angle, and reaching inwards nearly to projection of median fascia: cilia fuscous, darker at base, above apex white, on anal angle whitish-ochreous. Hindwings whitish-ochreous; a discal dot at  $\frac{2}{3}$  and a small cloudy apical spot light grey; cilia whitish-ochreous.

Newcastle and Sydney, New South Wales; in September and October, four specimens.

81. *Com. sparsana*, Walk.

(*Conchylis sparsana*, Walk. Tort. 369; *Pallene gracilis*, Butl., Trans. Ent. Soc. Lond. 1877, 376.)

♂ ♀. 16-17 mm. Head white or ochreous-white, face and palpi dark fuscous. Antennæ whitish, in ♂ slenderly bidentate. Thorax black, collar, a small spot on each side of back, and apex of patagia white. Abdomen light ochreous-yellow. Legs dark fuscous, posterior pair pale yellowish. Forewings very elongate-triangular, costa gently arched, apex obtuse, hindmargin somewhat rounded, oblique; ochreous-white; markings blackish; a dot at base of costa; a dot near inner margin before middle; a series of three black dots from  $\frac{1}{4}$  of costa to middle of median fascia; a slender rather irregular slightly inwards-curved fascia from middle of costa to beyond middle of inner margin, followed by a more or less distinct cloudy parallel almost confluent line; a transverse linear mark in disc at  $\frac{3}{4}$ , connected by a suffusion with an irregular somewhat outwards-curved series of dots from  $\frac{3}{4}$  of costa to anal angle; an irregular suffused streak from costa near apex to middle of hindmargin, forming a spot on costa, attenuated beneath; a hindmarginal series of dots: cilia ochreous-white or whitish-ochreous. Hindwings light ochreous-yellow; a transverse-linear dot in disc at  $\frac{2}{3}$ , and a small cloudy apical spot dark grey; cilia pale yellowish.

Queensland; Sydney, New South Wales; in September and October, rather common.

Sect. B. Antennæ of ♂ filiform, moderately and evenly ciliated.

82. *Com. aspectatella*, Walk.

(*Oecophora aspectatella* (-*alella*), Walk., Tin. 679; *Tinea oecophorella*, ib. Suppl. 1813.)

♂ ♀. 15-22 mm. Head white or ochreous-white. Palpi dark fuscous. Antennæ dark fuscous, more or less ringed with whitish-ochreous. Thorax dark fuscous, with anterior and posterior white spots. Abdomen pale ochreous-yellow. Legs dark fuscous, posterior pair pale ochreous-yellow. Forewings very elongate-triangular, costa gently arched, apex rounded, hindmargin obliquely rounded; white or ochreous-white; markings dark fuscous; a rather broad costal streak from base, variable in extent, sometimes short, sometimes reaching more or less completely to median fascia, at base expanded to inner margin; two irregular subdentate well-marked lines, first from middle of costa to before middle of inner margin, second from  $\frac{3}{4}$  of costa to  $\frac{2}{3}$  of inner margin, included space below a line from apex of first to middle of second more or less wholly filled with dark fuscous and yellow-ochreous variably mixed; a rather broad somewhat inwards-curved fascia from costa near apex to anal angle, anteriorly margined on upper half by second line, posteriorly more or less confluent with a sub-triangular spot on upper half of hindmargin: cilia white or ochreous-white, on anal angle dark fuscous, round apex barred with dark fuscous. Hindwings light ochreous yellow; a cloudy grey apical spot; cilia pale ochreous-yellow, round apex sometimes barred with grey.

Sydney and Mount Kosciusko (4,000 feet), New South Wales; also from Victoria; in January, four specimens.

27. *ANESTIA*, n. g.

Tongue rudimentary. Antennæ in ♂ moderately bipectinated throughout. Palpi very short, with appressed scales, somewhat pointed, porrected. Forewings with vein 2 from beyond middle, 7 and 8 stalked, 9 and 10 stalked. Hindwings with veins 6 and 7 stalked, 8 from middle.

83. *Anest. ombrophanes*, n. sp.

♂. 19-25 mm. Head whitish-ochreous, face more or less fuscous beneath. Palpi and antennæ dark fuscous. Thorax rather dark fuscous, with an anterior ochreous-whitish spot. Abdomen orange. Legs dark fuscous, posterior pair light ochreous-yellowish. Forewings very elongate-triangular, costa posteriorly gently arched, apex rounded, hindmargin very obliquely rounded; whitish, often suffused with fuscous except on median band; a suffused dark fuscous streak along basal half of costa; an irregular dark fuscous line from costa before middle to  $\frac{2}{5}$  of inner margin; a round blackish dot in middle of disc; an irregular sinuate dark fuscous line from  $\frac{3}{4}$  of costa to  $\frac{3}{4}$  of inner margin, beyond which the hindmarginal area is usually fuscous with one or two obscure whitish subapical spots, more rarely white with two dots above middle of hindmargin and one below dark fuscous: cilia varying from fuscous to light ochreous-yellowish. Hindwings orange; a dark fuscous apical spot, connected with a slender dark fuscous streak along hindmargin to near anal angle; cilia pale orange, base mixed with dark fuscous.

Melbourne, Victoria; in October, four specimens.

## 28. EUTANE, Walk.

Tongue well-developed. Antennæ in ♂ filiform, shortly ciliated ( $\frac{1}{2}$ ). Palpi short, porrected, with rough projecting scales beneath, terminal joint short, concealed. Thorax and femora hairy beneath. Forewings with vein 2 from  $\frac{2}{3}$ ; 4 and 5 approximated at base, 8, 9, and 10 out of 7. Hindwings with veins 3 and 4 stalked, 6 and 7 stalked, 8 from middle.

84. *Eut. terminalis*, Walk.

(*Eutane terminalis*, Walk. Bomb. 531; *E. maculata*, Butl., Trans. Ent. Soc. Lond. 1877, 335.)

♂ ♀. 24-25 mm. Head orange. Palpi and antennæ black. Thorax black, anterior margin orange. Abdomen black, anal tuft orange. Legs black, coxæ and posterior tibiæ except apex orange.

Forewings very elongate-triangular, costa slightly arched, apex rounded, hindmargin obliquely rounded ; black ; markings orange ; a broad transverse spot near base, sometimes reaching inner margin and nearly costa ; two variable opposite spots about  $\frac{1}{3}$ , sometimes enlarged and confluent to form a rather broad fascia, sometimes very small or upper almost obsolete ; a moderate hardly curved fascia from  $\frac{3}{5}$  of costa to  $\frac{2}{3}$  of inner margin, attenuated on inner margin ; a hindmarginal band of three moderate spots, two upper often confluent on margin : cilia black. Hindwings orange ; a variable black border, sometimes moderately narrow, sometimes occupying half length of wing ; cilia black.

Larva feeds on lichen-dust on walls.

Maryborough, Queensland ; Newcastle and Sydney, New South Wales ; in September, October, January, and February, often very abundant, flying in sun near houses.

## 29. ASURA, Walk.

Tongue well-developed. Antennæ in ♂ moderately bipectinated throughout. Palpi moderate or short, slender, ascending, loosely haired. Thorax and femora shortly hairy beneath. Forewings with vein 2 from  $\frac{1}{2}$ - $\frac{3}{4}$ , 6 from point with 9 or separate, 7 and 8 out of 9, 11 anastomosing or connected by bar with 12. Hindwings with veins 6 and 7 stalked, 8 from  $\frac{3}{4}$ .

A. Hindwings towards base orange .....85. *lydia*.

B.       "                       "       black.

a. Palpi and crown black .....86. *cervicalis*.

b.       "                       "       orange .....87. *habrotis*.

## 85. *As. lydia*, Don.

(*Pitane lydia*, Don., Walk. Bomb. 532 ; *Asura gaudens*, ib. 485.)

♂ ♀. 19-24 mm. Head and palpi orange, space between antennæ dark fuscous. Antennæ, thorax, and abdomen blackish, collar and anal tuft orange. Legs blackish. Forewings elongate-triangular,

costa gently arched, apex obtuse, hindmargin obliquely rounded ; black ; markings orange ; a moderately broad transverse spot near base, sometimes reaching inner margin, and nearly costa ; two variable opposite spots about  $\frac{1}{4}$ , sometimes touching margins ; an elongate transverse spot in middle, rarely connected with inner margin ; a slender irregular slightly curved fascia from  $\frac{2}{3}$  of costa to  $\frac{3}{4}$  of inner margin, more or less dilated above ; a hindmarginal band of three moderate spots : cilia blackish. Hindwings orange ; a moderately broad hindmarginal blackish band, sometimes considerably narrowed beneath ; a moderate blackish fascia from costa before middle to anal angle, rarely absent ; cilia blackish.

Queensland ; Glen Innes (3,000 feet), Newcastle, Sydney, and Wollongong, New South Wales ; Fernshaw, Victoria ; from September to April, common.

86. *As. cervicalis*, Walk.

(*Asura cervicalis*, Walk. Bomb. 484.)

♂. 28-34 mm. Head, palpi, antennæ, and thorax black, face and collar orange. Abdomen black, with dorsal and lateral orange stripes. Legs blackish. Forewings very elongate-triangular, costa gently arched, apex rounded, hindmargin rounded, rather strongly oblique ; blackish, with five moderate irregular orange spots ; first towards base above inner margin ; second above middle of disc ; third above middle of inner margin ; fourth in disc at  $\frac{4}{5}$  ; fifth above anal angle, more or less bisected ; cilia blackish. Hindwings blackish ; a large transverse orange discal blotch in middle, nearly reaching middle of costa, and less nearly anal angle ; cilia blackish.

Sydney, New South Wales (Mr. Masters states formerly common, but not of late years) ; Melbourne, Victoria ; also from Tasmania ; common.

87. *As. habrotis*, n. sp.

♂. 21 mm. Differs from *A. cervicalis* only as follows : Head, palpi, and abdomen wholly orange. Wings considerably narrower. Forewings with two median spots almost touching.



New South Wales ; one specimen. May eventually prove to be a geographical form of the preceding species, but at present seems distinct.

30. METACRIAS, n.g.

Tongae obsolete. Antennæ in ♂ moderately bipectinated throughout. Palpi rather short, hairy, concealed in rough hairs of head. Thorax and femora densely hairy beneath. Anterior tibiæ with developed spine beneath and apical hook. Wings in ♀ rudimentary. Forewings with vein 2 from  $\frac{2}{3}$ , 6 from point with or out of 9, 7 and 8 out of 9, 10 sometimes connected with 9 at a point above 7. Hindwings with veins 3 and 4 almost from point, 6 and 7 from a point or short-stalked, 8 from  $\frac{1}{3}$ .

- a. Forewings with a red streak from base  
beneath costa .....89. *Huttonii*.
- b. Forewings without a red streak from base  
beneath costa.....88. *erichrysa*.

88. *Met. erichrysa*, n. sp.

♂. 31-33 mm. Head, palpi, antennæ, and thorax black ; hairs beneath thorax and partly above tending to become pale grey towards tips. Abdomen black, marked with yellow on sides and sometimes beneath. Legs yellow-ochreous. Forewings elongate-triangular, costa straight, apex obtuse, hindmargin strongly rounded, rather oblique ; vein 10 separate ; black ; markings orange-yellow ; a slender costal streak, much dilated on basal fourth ; a slender dorsal streak ; a wedgeshaped discal spot before middle ; a moderately broad streak along submedian fold from near base to  $\frac{3}{4}$  ; a curved discal series of five elongate spots about  $\frac{2}{3}$  ; a subterminal series of eight dots or small spots, more or less connected by fine longitudinal lines with hindmargin : cilia pale ochreous-yellow, basal half blackish. Hindwings orange-yellow ; a curved black transverse discal spot ; a moderate irregular-edged black hindmarginal band, on upper half containing three or four yellow dots, on lower half with an elongate orange-yellow marginal spot sending an acute projection to inner edge of band near anal angle ; cilia pale ochreous-yellow, on upper half black at base

♀. Wholly whitish-ochreous; wings minute, aborted; legs short, stout, well-developed.

Larva wholly black; hairs black, those covering segmental incisions brownish-ochreous. Feeds on *Senecio bellidioides*, in January. Cocoon rather slight.

Mount Arthur (4,000 feet), New Zealand; five specimens taken and bred in January.

89. *Met. Huttonii*, Butl.

(*Phaos Huttonii*, Butl. Cist. Ent. ii, 487.)

♂. 29 mm. Differs from *M. erichrysa* only as follows: Head and thorax with some yellow-whitish hairs. Forewings with vein 10 connected with 9 at a point above 7; markings whitish-ochreous; no costal streak; a bright crimson subcostal streak from base to  $\frac{1}{3}$ . Hindwings yellow, towards base mixed with blackish; spots in hindmarginal band reduced, supra-anal spot moderate, triangular, not reaching edge of band.

Lake Wakatipu, New Zealand; discovered by Prof. Hutton, who also observed the apterous ♀.

31. *SPILOSOMA*, Stph.

Tongue rudimentary. Antennæ in ♂ moderately bipectinated throughout, in ♀ also shortly bipectinated or serrate. Palpi moderate, porrected, with appressed scales or hairy beneath, terminal joint rather short, somewhat pointed. Thorax and femora densely hairy beneath. Anterior tibiæ with more or less developed spine beneath and apical hook. Forewings with vein 2 from middle, 6 from near or rarely out of 9, 7 and 8 out of 9, 10 out of 9 below 7. Hindwings with veins 4 and 5 rarely short-stalked, 6 and 7 from a point or approximated at base, 8 from  $\frac{1}{3}$ .

The dark markings of all the species of this genus are very variable.

## A. Hindwings rosy.

- a. Forewings with four moderate equidistant  
black costal spots .....92. *erythrastis*.
- b. Forewings without such spots.....91. *fuscinula*.

## B. Hindwings not rosy.

- a. Hindwings yellow.....90. *interfixa*.
- b.       ,,       white.
- 1. Thorax with dark fuscous stripes .....,93. *fulvohirta*.
- 2.       ,,       wholly white .....94. *obliqua*.

90. *Spil. interfixa*, Walk.

(*Phaos interfixa*, Walk. Bomb. 627.)

♂. 28-30 mm. Head and palpi black mixed with ochreous-whitish. Antennæ black. Thorax black, anterior margin and central and lateral lines ochreous-whitish. Abdomen rosy-crimson, with transverse black spots above, beneath whitish with three rows of blackish spots. Legs whitish-ochreous, anterior femora rosy-tinged. Forewings very elongate-triangular, costa straight, apex obtuse, hindmargin obliquely rounded; whitish-ochreous; inner margin narrowly yellowish; a suffused rosy almost costal streak from base to  $\frac{1}{3}$ ; lower median vein and branches, and vein 1 slenderly black; a slender blackish fascia before middle, not touching margins; a slender blackish fascia at  $\frac{2}{3}$ , upper half strongly curved outwards and interrupted by an oblong ochreous-yellow spot above middle, before which is a quadrate black spot; a moderate irregular-edged black fascia about  $\frac{3}{4}$  parallel to hindmargin; a moderate black hindmarginal fascia, cut by a series of elongate whitish-ochreous spots not quite reaching hindmargin: cilia whitish-ochreous, basal half black. Hindwings ochreous-yellow, towards base and along costa suffusedly mixed with black; a quadrate black discal spot touching costal suffusion; branches of lower median vein sometimes black; a rather broad black hindmarginal band, containing a small ochreous-yellow mark on middle of hindmargin and a small spot above anal angle; cilia pale yellowish, basal half black; veins 4 and 5 short-stalked.

♀ with black markings of forewings much broader and more confluent; hindwings without spots in hindmarginal band.

var. ♂ with black markings of forewings broadly suffused and confluent, obscuring the groundcolour, which is reduced to a few very small spots; in this specimen veins 9 and 10 of forewings are entirely absent, and it is therefore probably to be regarded as a diseased and abnormal form.

Specially recognisable by the black base of cilia, and the yellow hindwings.

Tasmania; four specimens (Australian Museum).

91. *Spil. fuscinula*, Walk.

(*Arctia fuscinula*, Walk. Bomb. 616; ? *Phaos vigens*, Butl., Proc. Zool. Soc. Lond. 1878, 383; *P. nigriceps*, ib. 383; *P. notatum*, ib. 383; *P. nexum*, ib. 384; *P. lacteatum*, ib. 384.)

♂ ♀. 31-36 mm. Head whitish-ochreous or ochreous, sometimes fuscous-tinged. Palpi and antennæ blackish. Thorax whitish-ochreous, with more or less broad central and lateral blackish stripes from behind collar. Abdomen bright rosy, with dorsal and lateral series of blackish spots, beneath whitish-ochreous. Legs dark fuscous, femora rosy. Forewings triangular, more elongate in ♀, costa almost straight, apex obtuse, hindmargin rounded, in ♂ slightly, in ♀ moderately oblique; whitish-ochreous, sometimes fuscous-tinged; markings black, very variable; in lightest specimens basal fourth of costa, a small discal spot, an interrupted thick streak beneath central portion of lower median vein, and a broadly interrupted streak above vein 1 black; in darkest specimens also with disc up to  $\frac{2}{3}$  wholly blackish, reaching costa and inner margin at  $\frac{2}{3}$ , and posterior and hindmarginal irregular sometimes confluent blackish fascia; all intermediate forms: cilia wholly whitish-ochreous, rarely fuscous-tinged. Hindwings light rosy; a roundish black discal spot; a black hindmarginal band, sometimes entire, sometimes reduced to three small bisected spots, with all intermediate forms: cilia whitish-ochreous; base rosy.

Distinguished from the preceding by the wholly whitish-ochreous cilia and rosy hindwings; the ♂ is distinctly the shortest-winged species relatively of the genus, but the difference is not noticeable in the ♀. Northern forms tend to be less strongly marked with black than southern.

Brisbane, Queensland; Newcastle and Sydney, New South Wales; Melbourne, Victoria; from August to October, in March and June; common.

92. *Spil. erythrastis*, n. sp.

♂. 42 mm. Head ochreous-whitish, face, palpi, and antennæ dark fuscous. Thorax ochreous-whitish, incisions of collar pale rosy, two spots on anterior margin, one on each patagium, and a dorsal stripe dark fuscous. Abdomen proportionately long, bright rosy, beneath ochreous-whitish, with a dorsal series of transverse black spots obsolete towards base, and double lateral series of small black spots. Legs fuscous, femora and middle and posterior tibiæ rosy above. Forewings rather elongate-triangular, costa anteriorly straight, arched towards apex, apex rounded, hindmargin obliquely rounded; clear ochreous-whitish; markings blackish-fuscous; five irregular transverse series of small spots, first four starting from moderate subtriangular spots on costa; first very near base; second about  $\frac{1}{4}$ , represented only by one spot beneath costal; third slightly beyond middle, abruptly curved outwards in disc, thrice interrupted; fourth about  $\frac{3}{4}$ , represented by a spot below costal spot and one on inner margin; fifth consisting of about eight dots, irregularly placed, not reaching costa: cilia ochreous-white, with five dark fuscous spots on lower  $\frac{2}{3}$  of hindmargin. Hindwings bright rosy; a roundish black discal spot; a small blackish spot towards apex, and two transversely placed towards hindmargin above anal angle; cilia whitish, base whitish-ochreous. Undersurface of forewings suffused with bright rosy towards disc.

Specially characterised by the peculiar shape of wing and elongate abdomen; differs from *S. fuscinula*, the only other



species with rosy hindwings, by the conspicuous equidistant costal spots, absence of costal basal streak and of median and submedian streaks, and by the dark spots of cilia.

Lizard Island, off Cape Flattery, Queensland ; one specimen (Coll. Macleay).

93. *Spil. fulvohirta*, Walk.

(*Ardices fulvohirta*, Walk. Bomb. 710 ; *Spilosoma subocellatum*, ib. 1697 ; *S. conferta*, ib. Suppl. 295.)

♂ ♀. 46-63 mm. Head white, face blackish. Palpi rosy, base and apex fuscous. Antennæ blackish. Thorax white or ochreous-white, shoulders narrowly red, a short stripe on patagia and central more or less complete stripe dark fuscous. Abdomen yellow, ochreous-orange, or red, with dorsal row of large transverse black spots, and lateral rows of small spots, beneath whitish, sometimes banded with black, sometimes wholly black except reddish-white segmental margins. Legs dark fuscous, femora red. Forewings elongate-triangular, costa almost straight, apex obtuse, hindmargin rather obliquely rounded ; white ; markings fuscous, somewhat darker-margined ; five variable irregular fasciæ, interrupted by white lines on veins, and an irregular sometimes interrupted dorsal streak from base to middle ; first and second fasciæ angulated, sometimes suffused together and with third below middle ; third from costa beyond middle to inner margin beyond middle, sinuate, containing a variable white spot above middle ; fourth and fifth irregularly confluent above middle, fifth sometimes broken and confused, third and fourth sometimes confluent ; sometimes a hind-marginal row of small spots : cilia white, partly barred with fuscous on basal half. Hindwings white ; a roundish fuscous discal spot before middle ; a variable subterminal fuscous fascia or series of spots ; some scattered irregular fuscous dots on hind-margin ; cilia white.

Very like the following in some forms, but always distinguished from it by the dark fuscous stripes of thorax.

Queensland ; Sydney, New South Wales ; Melbourne, Victoria ; Tasmania ; Albany, West Australia ; common, in October.

94. *Spil. obliqua*, Walk.

(*Spilosoma obliqua*, Walk., Bomb. 679 ; *Ardices canescens*, Butl. Cist. Ent. ii, 29 ; *Spilarcia obliqua*, ib. 41.)

♂ ♀. 41-57 mm. Differs from *S. fulvohirta* only as follows: Thorax wholly white. Abdomen red, with small dorsal and lateral black spots, beneath white. Forewings with a black dot on base of costa ; first fascia wholly absent ; a discal dot beyond second ; last three fasciæ reduced to a single fascia, furcate or trifurcate towards costa ; some dots towards hindmargin in middle : cilia white, with two fuscous bars above middle, sometimes barred throughout with fuscous. Hindwings white ; a small fuscous discal spot before middle ; three fuscous spots towards hindmargin, first beneath apex, two above anal angle.

Sydney, New South Wales ; Melbourne, Victoria ; in September, common.

32. *AREAS*, Walk.

Tongue developed, rather short. Antennæ less than half forewings, in ♂ shortly bipectinated, pectinations obsolete towards base and apex. Palpi rather short, thickened with rough scales beneath, terminal joint short. Thorax hairy beneath. Anterior tibiæ with well-developed apical hook. Forewings with vein 2 from  $\frac{3}{4}$ , 4 and 5 from a point or stalked, 6 from very near or out of 9, 7 and 8 out of 9, 10 out of 9 below 7. Hindwings with veins 4 and 5 from a point or short-stalked, 6 and 7 from point or stalked, 8 from before middle.

Not having seen Walker's type of *Areas*, I have been compelled to rely on Mr. Butler's authority for the use of the name for this genus.

- a. Thorax with two black spots.....96. *costalis*.
- b.    ,,   without   ,,    ,, .....95. *marginata*.

95. *Ar. marginata*, Don.

(*Phalæna marginata*, Don. Ins. N. H. ; *Areas Moorei*, Butl., Cist. Ent. ii, 23, Ill. Het. V, 28, pl. LXXXV, 2 ; *A. roseicostis* ib., Cist. Ent. ii, 23.)

♂ ♀. 37-56 mm. Head and thorax white, incision of neck red. Palpi red, terminal joint black. Antennæ black. Abdomen red, with dorsal series of black transverse spots, and lateral series of small spots, beneath white with two series of black dots. Legs black, femora red, beneath white. Forewings very elongate-triangular, costa gently arched, apex obtuse, hindmargin rounded, rather strongly oblique; shining white; a very slender costal black streak from base to near apex, sometimes absent; a slender red streak beneath this from base almost to apex; a slender black streak along lower median vein from base to  $\frac{2}{3}$ , sometimes absent; sometimes a black dot beneath costa at  $\frac{2}{3}$ ; a black elongate dot near hindmargin on vein 2 and another on vein 5, both variable and sometimes absent: cilia white. Hindwings shining white; a small black transverse discal median spot; four small irregular almost or quite marginal black spots, first above apex, fourth above anal angle: cilia white.

var. *a*. Head and thorax suffused with ochreous or rosy; forewings suffused with rosy or yellowish-tinged, a subcostal sometimes furcate black streak, median streak thicker, trifurcate or quadrifurcate, a subdorsal black streak: hindwings tinged or suffused with rosy, two lower marginal black spots sometimes connected with broad blackish longitudinal streaks nearly reaching base.

var. *β*. Forewings and hindwings wholly without black markings.

Varies much according to locality, but all the varieties are connected by intermediate forms and certainly identical, except perhaps var. *β*, which however I believe to be only an accidental sport. Generally speaking, it is only in the most Southern specimens that the black markings of the forewings are much developed; in going North they tend to disappear; at Sydney the normal form is that described as typical, whence a perfect series of geographical forms can be obtained leading to the Cooktown form, in which the black markings of the forewings are usually wholly absent; the single specimen of var. *β* was from Rockhampton.

Butler's figure of *A. Moorei* from India does not differ from the normal Cooktown form.

Cooktown, Duaringa, Rockhampton, Gayndah, and Brisbane, Queensland ; Newcastle and Sydney, New South Wales ; Melbourne and Warragul, Victoria ; Port Lincoln, South Australia ; common. Also from India.

96. *Ar. costalis*, Walk.

(*Aloa costalis*, Walk. Suppl. 301.)

♀. 45 mm. Head white, posterior margin red. Palpi reddish, apex dark fuscous. Antennæ blackish. Thorax white, posterior margin of collar red, patagia with black central spot. Abdomen red, beneath and at apex white, with a dorsal series of transverse blackish spots, and double lateral series of small black spots. Legs dark fuscous, beneath white, femora red above except at apex. Forewings very elongate-triangular, costa moderately arched, apex rounded, hindmargin very obliquely rounded ; white ; a narrow red costal streak ; a small black spot beneath costa near base ; a somewhat curved series of four black spots from  $\frac{1}{4}$  of costa to  $\frac{1}{3}$  of inner margin ; two small black discal spots placed transversely beyond middle ; a curved somewhat sinuate series of nine small confluent blackish spots from  $\frac{3}{4}$  of costa to  $\frac{3}{4}$  of inner margin ; three small blackish spots between this and hindmargin, on costa, above middle, and at  $\frac{3}{4}$  ; a hindmarginal series of small semioval confluent blackish spots : cilia white, base blackish. Hindwings white, base reddish-tinged ; a blackish discal spot ; a rather narrow blackish hindmarginal fascia, attenuated round apex, acutely indented below apex, in middle, and towards anal angle, median indentation bifurcate ; cilia white, base blackish.

North Australia ; one specimen (Coll. Macleay).

33. *DEIOPEIA*, Stph.

Tongue well-developed. Antennæ in ♂ filiform, shortly ciliated ( $\frac{1}{2}$ ), with scattered longer cilia. Palpi moderate, arched, ascending, second joint thickened with dense loosely appressed scales, terminal joint moderate, cylindrical, obtuse. Spurs extremely short. Forewings with vein 2 from  $\frac{3}{5}$ , 7 and 8 out of 9. Hindwings with veins 6 and 7 approximated at base, 8 from middle.

97. *Deio. pulchella*, L.

♂ ♀. 33-36 mm. Head and thorax ochreous-whitish, spotted with black and orange. Palpi whitish, terminal joint black. Antennæ blackish. Abdomen white. Legs dark fuscous, posterior pair white. Forewings extremely elongate-triangular, costa slightly arched, apex obtuse, hindmargin rather obliquely rounded; ochreous-whitish; six angulated transverse series of black dots between veins, first subbasal, sixth hindmarginal, alternating with five series of two or three small subquadrate red spots, one of each series being costal; four additional black dots transversely placed in disc between fourth and fifth series: cilia white, terminal half barred with grey. Hindwings white; two almost connected small blackish discal spots on transverse veins; a narrow irregular blackish-grey hindmarginal band, dilated into a triangular blotch at apex, and an irregular quadrate smaller blotch below middle; cilia white, base dark grey.

Brisbane, Queensland; Newcastle and Sydney, New South Wales; Mount Lofty, South Australia; in September, March, and April, common, sometimes in abundance. Also from New Guinea, Philippines, Ceylon, India, Africa, and South Europe.

## HYPSIDAE.

Ocelli present. Antennæ about  $\frac{2}{3}$ , not thickened. Maxillary palpi absent. Posterior tibiæ with spurs all present. Frenum developed. Forewings with 1 simple at base, 7, 8, and 9 stalked. Hindwings with 1c absent, 6 and 7 approximated at base or stalked, 8 anastomosing with upper margin of cell, separating towards base, or connected by a median bar only. Larvae 16-legged, uniformly clothed with fascicles of long hairs.

Differs essentially from the *Arctiadae* by vein 8 of the hindwings not coinciding completely with upper margin of cell towards base. The family is principally tropical, and only three Australian genera are strictly referable to it. At the end of these I have added the genus *Digama*, which is really allied to them, but differs essentially



in having vein 8 of the hindwings approximated but not connected to the upper margin of cell ; it cannot therefore be included in the family as defined, but may be regarded as an unattached genus for the present, until I obtain further material to constitute a family. All four genera are characteristically Indo-Malayan.

A. Hindwings with vein 8 anastomosing with margin of cell.

a. Antennæ in ♂ filiform.....35. *Amerila*.

b. „ „ more or less pectinated ...34. *Nyctemera*.

B. Hindwings with vein 8 connected with cell by

a bar .....36. *Hypsa*.

From these *Digama* differs as mentioned above.

### 34. NYCTEMERA, Hb.

Tongue well-developed. Antennæ in ♂ more or less bipectinated throughout, sometimes shortly in ♀ also. Palpi moderately long, porrected or rather ascending, with appressed scales, terminal joint moderate, cylindrical. Forewings with 6 out of 9 or separate, 7 and 8 out of 9, 10 connected with 9 by a bar. Hindwings with 6 and 7 stalked or separate, 8 anastomosing shortly with margin of cell near base.

1. Hindwings yellow..... 103. *cribraria*.

„ not „ ..... 2.

2. Forewings with white submarginal spots..... 102. *separata*.

„ without „ ..... 3.

3. Cilia of wings yellow-whitish except base.... 98. *amica*.

„ „ wholly blackish..... 4.

4. Hindwings with small white spot..... 99. *annulata*.

„ „ disc wholly white ..... 5.

5. Fascia of forewings divided by black veins

into six spots ..... 100. *tertiana*.

Fascia of forewings undivided ..... 101. *crescens*.

98. *Nyct. amica*, White.

(*Agagles amicus*, White, Grey's Disc. 482 ; *Nyctemera annulata*, Walk. (nec Boisd.) Bomb. 391.)

♂ ♀. 35-39 mm. Head black, a spot on side of face and incision of neck orange. Palpi black, basal joint orange. Antennæ black, in ♂ rather strongly, in ♀ shortly pectinated. Thorax black, margin of collar and a stripe on each side of back meeting behind orange, margins of patagia whitish-ochreous. Abdomen orange, base of segments black, dilating into a dorsal spot. Legs blackish, beneath whitish-ochreous. Forewings rather elongate-triangular, costa posteriorly moderately arched, apex obtuse, hindmargin rather obliquely rounded ; blackish ; an orange basal dot beneath costa ; veins sometimes marked with very fine yellow-whitish lines towards base ; dorsal margin very slenderly yellowish-white from near base to middle ; a moderately broad irregular-edged ochreous-white fascia from costa beyond middle towards anal angle, not reaching it, on costa blackish-edged, interrupted by a blackish line on lower median vein : cilia yellow-whitish or pale yellow, basal half black. Hindwings with veins 6 and 7 from a point ; blackish ; a moderate irregular ochreous-white spot beyond middle towards costa ; cilia as in forewings.

Larva black ; hairs spinose, black ; spots large, shining ; dorsal line red ; lateral irregular, red, interrupted by a whitish spot on each segment ; sometimes a series of obscure whitish spots about spiracles, and an interrupted dull red subspiracular line, both often nearly obsolete ; head black. Feeds on various species of *Senecio*.

Newcastle and Sydney, New South Wales ; Melbourne, Victoria ; Mount Lofty, South Australia ; in June, July, September, and November, generally common.

99. *Nyct. annulata*, Boisd.

(*Leptosoma annulatum*, Boisd, Voy. Astr. V, 197, pl. V, 9, Dbld. Dieff. N. Zeal. ii. 284 ; *Nyctemera Doubledayi*, Walk. Bomb. 392.)

♂ ♀. 38-42 mm. Differs from *N. amica* only as follows: Head and patagia wholly black. Abdomen with black bands broader, not perceptibly dilated. Wings with white markings much smaller, sometimes almost wholly obsolete; no white lines on veins or inner margin; cilia wholly black.

Larva black; hairs black; spots large, indigo blue; dorsal and lateral lines narrow, irregular, reddish-orange; head black. Feeds on various species of *Senecio*, sometimes completely stripping the plants.

New Zealand, abundant throughout North and South Islands; according to Boisduval's original statement also from New Guinea, but I think this is probably an error, to be regarded as a *lapsus calami*; at least, it has never been confirmed.

100. *Nyct. tertiaria*, Meyr.

(*Nyctemera tertiaria*, Meyr., Ent. Mo. Mag. XXIII, 15; *N. latistriga*, Snell. (nec. Walk.), Tijds. v. Ent. 1878, 72, pl. VI, 6.)

♂ ♀. 42-48 mm. Differs from *N. crescens* only as follows; Abdominal segments with broader apical ochreous-yellow rings. Forewings dark fuscous, with all main veins and median and submedian folds yellow-whitish anteriorly; fascia divided by dark fuscous veins into six spots. Hindwings often (not always) with inner margin very broadly dark fuscous, so that the white is reduced to a large roundish discal blotch.

Cooktown, Queensland; ten specimens (Coll. Macleay and Lucas). Also from Celebes.

101. *Nyct. crescens*, Walk.

(*Nyctemera crescens*, Walk. Suppl. 204.)

♂ ♀. 39-44 mm. Head ochreous-yellow, with a large black spot on face and another on crown. Palpi dark fuscous, basal half yellowish. Antennæ dark fuscous, in ♂ rather strongly, in ♀ shortly pectinated. Thorax black, a stripe on each side of back and margins of collar and patagia ochreous-yellow. Abdomen

blackish, all segments with apical white rings, becoming yellowish beneath, anal tuft ochreous-yellow. Legs blackish. Forewings rather elongate-triangular, costa moderately arched, apex obtuse, hindmargin obliquely rounded; blackish; dorsal margin very narrowly yellowish-white from near base to  $\frac{2}{3}$ ; vein 1 yellowish-white anteriorly; a moderately broad irregular-edged ochreous-white fascia from beyond middle of costa towards anal angle, not reaching it, on costa blackish-edged, anterior edge acutely indented in middle: cilia blackish. Hindwings with veins 6 and 7 stalked; white; costa narrowly grey; a moderately broad irregular-edged black hindmarginal band, semicircularly excavated towards middle; cilia blackish.

Cooktown and Cairns, Queensland; five specimens (Coll. Macleay and Lucas).

102. *Nyct. separata*, Walk.

(*Nyctemera separata*, Walk. Suppl. 204.)

♂ ♀. 40-44 mm. Head yellow-whitish, with a blackish spot on forehead and another on crown. Palpi dark fuscous, basal half pale yellowish. Antennæ dark fuscous, in ♂ with very short pectinations terminating in long cilia, in ♀ simply ciliated. Thorax whitish-yellow, with ten blackish spots. Abdomen white, segments grey towards base, anal tuft of ♂ yellowish. Legs grey. Forewings rather elongate-triangular, costa moderately arched, apex obtuse, hindmargin obliquely rounded; rather light fuscous; dorsal edge very narrowly white; an irregular-edged white fascia from beyond middle of costa to before anal angle, rarely reaching inner margin, in one specimen reduced to a costal spot and three dots; two small sometimes confluent white spots towards apex, and a third towards hindmargin in middle: cilia pale fuscous. Hindwings with veins 6 and 7 from a point; white; an irregular moderate dark grey hindmarginal band, indented beneath apex, containing a small white almost apical spot, and a second (sometimes confluent with disc near middle of hindmargin; cilia grey.

Cape York, Cooktown, and Cairns, Queensland; seven specimens (Coll. Macleay and Masters). Also from Aru and Ceram.

103. *Nyct. cribraria*, Cl.

(*Phalaena cribraria*, Cl. ; *Noctua astrea*, Drury, Ins. Exot. ii., 11, pl. VI, 3 ; *Bombyx pylotis*, F. ; *Xanthesthes guttata*, Ramb. ; *Argina notata* Butl., Trans. Ent. Soc. Lond. 1877, 365.)

♂ ♀. 39-44 mm. Head and palpi ochreous-yellow, terminal joint black. Antennæ dark fuscous, in ♂ with very short pectinations terminating in long cilia, in ♀ simply ciliated. Thorax ochreous-yellow, with seven small black sometimes pale-margined spots. Abdomen deep ochreous-yellow, with dorsal, lateral, and ventral series of small black spots. Legs ochreous-yellow, anterior and middle pair dark fuscous above. Forewings rather elongate-triangular, costa gently arched, apex obtuse, hindmargin rather obliquely rounded ; ochreous-yellow or light orange ; five transverse irregular series of from six to nine small black spots, often surrounded with ochreous-whitish rings ; first angulated, second and third sinuate, fourth and fifth curved, fifth hindmarginal except near apex ; two similar spots near base, on costa and in middle ; four similar spots in a transverse irregular row in disc between third and fourth series : cilia ochreous-yellow. Hindwings with veins 6 and 7 from a point, anal angle in ♂ produced into a short projection ; orange-yellow, with seven or eight black spots ; two or three in a median series, one in disc beyond middle, one towards inner margin at  $\frac{2}{3}$ , and three submarginal ; three round black dots on hindmargin towards middle ; a small black spot on anal projection ; cilia yellow.

Cape York, Cooktown, Townsville, Duaringa, and Brisbane, Queensland ; generally common towards the north. Also from China, Ceylon, India, Madagascar, Africa, probably throughout tropical regions of the Old World.

35. *AMERILA*, Walk.

Tongue well-developed. Antennæ in ♂ filiform, simple, with scattered short cilia. Palpi moderate, arched, ascending, with loosely appressed scales, basal joint rough beneath and somewhat tufted above, terminal joint moderate, cylindrical, obtuse. Tarsi



spinose. Forewings in ♂ beneath often with a small pencil of hairs on vein 1 towards middle; 2 from  $\frac{2}{3}$ , 3, 4, and 5 approximated at base, 6 from near 9, 7 and 8 out of 9, 10 connected with 9 by bar. Hindwings in ♂ sometimes with several long spreading pencils of hair on inner margin; 3, 4, 5 approximated at base, 6 and 7 approximated at base, 8 anastomosing with upper margin of cell from near base to beyond middle.

A. Forewings with darker apical patch.

a. Forewings with large white basal patch.. 105. *brachyleuca*.

b. „ without „ „ .....104. *astreas*.

B. Forewings without darker patch.

a. Abdomen rosy.....106. *serica*.

b. „ whitish-ochreous.....107. *rubripes*.

104. *Amer. astreas*, Drury.

(*Sphinx astreas*, Drury, Ins. Exot. ii, pl. XXVIII, 4.)

♀. 56 mm. Head ochreous-whitish, with a black dot on forehead and another on crown. Palpi red, white beneath, apex of all joints broadly black. Antennæ dark fuscous, near base red on back, basal joint whitish above, red beneath. Thorax pale whitish-fuscous, with eight round black dots on back in two series, two on each shoulder, and one on each patagium. Abdomen rosy, beneath white, with a double lateral row of black dots. Legs rose-red, anterior and middle tibiæ fuscous. Forewings elongate-triangular, costa moderately arched, apex obtuse, hindmargin gently rounded, very oblique; semihyaline, tinged with whitish-fuscous; veins fuscous; a black dot on base of costa, a second in middle of base, and a third close beyond second; costa and inner margin suffused with whitish-fuscous; a moderately broad fuscous bar on transverse vein, connected on costa with a subtriangular fuscous apical patch, of which the anterior margin is subdentate on veins, and extends from  $\frac{2}{3}$  of costa to middle of hindmargin. Hindwings short, triangular, hindmargin almost straight; semihyaline, tinged with whitish-fuscous, more strongly towards inner margin; veins fuscous; a narrow fuscous apical spot.

Cape York, Queensland; one specimen (Coll. Macleay). Also from India. It appears to me that Boisduval's description under the name of *Chelonia saucia*, Voy. Astr. V., 214, (of which *Lithosia arthus-bertrand* (!), Guér., is certainly a synonym), indicates a species closely allied to *A. astreas*, but distinct.

105. *Amer. brachyleuca*, n. sp.

♂ ♀. 65-72. mm. Differs from *A. astreas* only as follows: Groundcolour of head and thorax white, incisions of neck and collar and posterior edge of collar rosy-red; basal joint of antennæ wholly red. Forewings with basal fourth white, bounded by a broad fuscous fascia, of which the anterior edge is curved inwards, running from  $\frac{1}{4}$  of costa to beyond  $\frac{1}{4}$  of inner margin, well-defined, posterior edge suffused. Hindwings with hindmargin more sinuate (longer in ♂ than in ♀), transverse vein marked with a narrow fuscous bar.

Cooktown, Bowen, and Gayndah, Queensland; five specimens (Coll. Macleay and Masters). This is evidently the species described by Walker under the name of the previous one (*A. astraea*, Walk. Bomb. 725).

106. *Amer. serica*, n. sp.

♂ ♀. 52-54 mm. Head white, with a black dot on crown. Palpi red, white beneath, apex of all joints black. Antennæ fuscous, towards base red, basal joint red with a black apical spot. Thorax white, with black dots as in *A. astreas*. Abdomen and legs as in *A. astreas*. Forewings formed as in *A. astreas*; pale whitish-fuscous, unicolorous; extreme base white, with a black dot on base of costa, and a second in middle of base. Hindwings very pale whitish-fuscous, unicolorous.

Rockhampton and Gayndah, Queensland; four specimens (Coll. Macleay and Masters).

107. *Amer. rubripes*, Walk.( *Amerila rubripes*, Walk. Suppl. 304.)

♂. 52-60 mm. Head white. Palpi rosy, white beneath, apex of second and terminal joints narrowly black. Antennæ whitish-fuscous, towards base rosy, basal joint white, red beneath. Thorax white, with black dots as in *A. astreas*, incisions of neck and collar and posterior edge of collar rosy. Abdomen whitish-ochreous, beneath white, with double lateral row of black dots. Legs white, femora red above, anterior tarsi and tibiæ internally rosy. Forewings formed as in *A. astreas*; snow-white; a black dot on base of costa, a small one in middle of base, and a larger one close beyond it. Hindwings with hindmargin rather strongly sinuate; snow-white.

Cooktown, Bowen, and Rockhampton, Queensland; three specimens (Coll. Macleay).

## 36. HYPSA, Hb.

Tongue well-developed. Antennæ in ♂ filiform, ciliated shortly or with moderate fascicles (1), and scattered longer single cilia. Palpi long, ascending, smoothly scaled, second joint rather long, terminal joint not much shorter than second, slender, cylindrical, round-pointed. Forewings in ♂ beneath with roundish impression towards inner margin in middle, bordered above by an oblique strigil; 2 from  $\frac{3}{4}$ , 3, 4, 5 tolerably approximated, 6 from near 9, 7 and 8 out of 9, 10 connected with 9 by bar. Hindwings with veins 3, 4, 5 approximated at base, 6 and 7 approximated at base, 8 connected with upper margin of cell by bar before middle.

A Hindwings with blackish marginal band.

a. Hindwings white or whitish.

1. Forewings light grey, greenish-tinged...108. *basilissa*.

2. „ rather dark brown.....109. *dama*.

b. Hindwings deep yellow.

1. Hindwings with blackish median fascia..110. *plagiata*.

2. „ without „ .....112. *australis*

## B. Hindwings without marginal band.

- a. Hindwings without dark markings.....114. *chloropyga*.
- b. „ with blackish markings.
  - 1. Hindwings with subterminal series of  
black spots ..... 111. *caricae*.
  - 2. Hindwings without subterminal series of  
black spots ..... 113. *nesophora*.

108. *Hyps. basilissa*, n. sp.

♂ ♀. 68-72 mm. Head white, crown and forehead orange. Palpi black, upper longitudinal half of second joint and base of first joint white. Antennæ dark grey, with a white streak above towards base, ciliations  $\frac{1}{2}$ . Thorax white, sprinkled with orange, collar and margins of patagia orange, a posterior round spot, one on each shoulder, and one in middle of each patagium black. Abdomen ochreous-yellow, towards base white, with dorsal row of black dots, beneath white with two rows of small black spots. Legs white, femora and tibiæ striped with black. Forewings elongate-triangular, costa strongly arched, apex obtuse, hindmargin obliquely rounded; light grey, greenish-tinged; veins and folds white; a small orange basal spot; a black dot on costa almost at base, and a small black spot in middle very near base; a broad irregularly curved white fascia from costa at  $\frac{2}{3}$ , narrowed beneath, and reaching to near inner margin at  $\frac{3}{4}$ , below middle with black band of undersurface showing through obscurely: cilia dark grey, with white spots on veins. Hindwings white; a moderate subtriangular black spot towards costa beyond middle; a moderate blue-black hindmarginal band, inner edge dentate, broadest at apex, attenuated to anal angle; cilia grey, with white spots on veins.

Cooktown and Cairns, Queensland; four specimens (Coll. Macleay). Allied to *H. dominia*, Cr., and *H. marmorea*, Walk., but with hindmarginal band of hindwings entire.

109. *Hyps. dama*, F.

(*Noctua dama*, F., Don., Boisd.; ? *Phalaena silvandra*, Cr. 369 D.)

♂ ♀. 57-64 mm. Head and thorax deep orange; a black dot on each side of collar, and a small black anterior spot on each patagium. Palpi blackish, lower longitudinal half of basal and second joints ochreous-yellow. Antennæ blackish, fascicles 1. Abdomen orange, with dorsal series of transverse black spots, and two sometimes confluent series of small spots on each side beneath. Legs fuscous, beneath ochreous-whitish. Forewings rather elongate-triangular, costa moderately arched, apex obtuse, hindmargin rounded, rather strongly oblique, inner margin in ♂ prominent beyond middle; rather dark brown; veins and folds slenderly yellowish-white; a small yellowish-white basal patch, containing a basal orange spot, and about six sometimes partially connected small blackish marks; a narrow ochreous-white median longitudinal streak from base, terminating in a moderate irregular roundish spot in middle of disc, shortly acutely produced along vein 3; cilia fuscous. Hindwings yellowish-white; a moderate blackish hindmarginal band, dilated towards apex, rather projecting inwards below middle, narrowed at anal angle, and continued as a dark grey suffusion along inner margin; cilia blackish.

Cape York and Cooktown, Queensland; six specimens (Coll. Macleay and Masters). Also from New Guinea; if the form *silvandra*, Cr., is specifically identical, it extends to India.

110. *Hyps. plagiata*, Walk.

(*Hypsa plagiata*, Walk. Bomb. 457; *H. discreta*, ib. Suppl. 216.)

♂ ♀. 50-63 mm. Head orange, sometimes with small dark fuscous spot on crown. Palpi black, second joint ochreous-yellow except at apex. Antennæ blackish, fascicles 1. Thorax dark fuscous, collar, patagia, and back margined with orange. Abdomen orange, segments with basal blackish bands, sometimes obsolete towards base, extreme apex blackish. Legs dark fuscous, suffusedly spotted with whitish-ochreous. Forewings elongate-triangular,



costa moderately arched, apex obtuse, hindmargin obliquely rounded, inner margin in ♂ prominent in middle; dark brown; veins and folds slenderly yellow-whitish; two narrow very irregular-dentate blackish fasciæ near base, both furcate and connected towards costa, included basal area orange, outer one margined posteriorly by a very irregular narrow whitish-ochreous fascia; an irregular roundish rather large ochreous-white discal spot beyond middle, sometimes containing a small cloudy dark fuscous spot; cilia dark brown. Hindwings deep ochreous-yellow; two moderate irregular blackish fasciæ, tending to be broken up into spots, first median, second hindmarginal; cilia ochreous-yellow.

Bowen and Rockhampton, Queensland; Clarence River, New South Wales; rather common.

111. *Hyps. caricae*, F.

(*Noctua caricae*, F., Don.; *N. alciphron*, Cr. 133 E.)

♂ ♀. 55-60 mm. Head and thorax orange, with a small black anterior spot on each patagium. Palpi orange, terminal joint, apex of second, and a dot on basal joint black. Antennæ black, ciliations thin, 1. Abdomen orange, segments 4-7 with black dorsal spots, and with a lateral series of black dots. Legs whitish-ochreous, anterior and middle femora and tibiæ blackish above. Forewings rather elongate-triangular, costa moderately arched, apex obtuse, hindmargin rounded, rather strongly oblique, inner margin in ♂ prominent in middle; brown; veins and folds slenderly yellow-whitish; a moderate orange basal patch, outer edge straight, not oblique, containing black subcostal and median dots near base, outer edge marked with three or four black dots; a small round yellow-whitish discal spot on transverse vein; cilia brown. Hindwings deep ochreous-yellow; three moderate suboval blackish discal spots, first before middle, second beyond first, third below first; an irregular subterminal series of small black spots, anteapical spot larger, one below middle further from margin; cilia ochreous-yellowish.

Cape York and Cooktown, Queensland; two specimens (Coll. Macleay). Also from New Guinea, Java, Ceylon, and India. In the only ♂ which I have examined vein 1 of the forewings is connected with inner margin by a bar near apex, but this may very possibly be only an exceptional individual character.

112. *Hyps. australis*, Boisd.

(*Aganais australis*, Boisd. Voy. Astr. V, 252, pl. V, 3; *Hypsa aequalis*, Walk. Suppl. 214.)

♂. 53 mm. Head orange. Palpi orange, terminal joint and a dot on basal joint black. Antennæ blackish, fascicles 1. Thorax orange, with a black anterior dot on each patagium. Abdomen orange, with dorsal and lateral series of small black spots. Legs whitish-ochreous, anterior and middle femora and tibiae fuscous above. Forewings elongate-triangular, costa moderately arched, apex obtuse, hindmargin very obliquely rounded, inner margin prominent beyond middle; rather dark brown; veins and folds slenderly yellow-whitish; a moderately large basal orange patch, containing two black subcostal dots and one in middle near base; two moderately large yellow-whitish discal blotches, first subquadrate, adjoining basal patch, separated from it by a black dot above lower median vein, and small black spot below it; second roundish, transverse, central; cilia fuscous. Hindwings ochreous-orange; a very narrow (but probably variable in width) dentate dark fuscous streak along hindmargin; cilia fuscous.

New South Wales (?); one specimen (Coll. Macleay). Also from New Guinea and Aru.

113. *Hyps. nesophora*, n. sp.

♂ ♀. 50-57 mm. Head and thorax whitish-ochreous, with a small black anterior spot on each patagium. Palpi black, second joint whitish-ochreous except at apex. Antennæ black, fascicles 1. Abdomen orange, segments 2-4 with dorsal black dot, 5-8 narrowly black at base, sometimes all black at base, and with lateral series of small black spots. Legs dark fuscous, beneath ochreous-whitish. Forewings rather elongate-triangular, costa

moderately arched, apex obtuse, hindmargin obliquely rounded, inner margin in ♂ somewhat prominent beyond middle; brown, very finely sprinkled with yellow-whitish; veins and folds slenderly yellow-whitish; a whitish-ochreous basal patch extending on costa to  $\frac{1}{3}$  and on inner margin to  $\frac{1}{4}$ , outer edge very ill-defined, containing six round black dots, of which three are subcostal, two on submedian fold, and one on outer edge above middle; transverse vein suffused obscurely with whitish-ochreous: cilia brown. Hindwings orange; two moderate suboval blackish spots, first below middle, second beyond middle, sometimes with a few connecting blackish scales; a small cloudy blackish spot below first, nearly touching anal angle; cilia orange.

Newcastle and Sydney, New South Wales; common (Coll. Macleay and Masters.)

114. *Hyps. chloropyga*, Walk.

(*Hypsa chloropyga*, Walk. Bomb. 455; *H. analis*, ib. 1677; *Agape cyanopyga*, Feld. Reis. Nov. pl. CVI, 4.)

♀. 56-62 mm. Head and thorax deep yellow; a black anterior dot on each patagium. Palpi pale greyish-ochreous, upper longitudinal half black. Antennæ black, with a white longitudinal streak. Abdomen ochreous-yellow, segments 2-4 narrowly blackish at base above, anal segment large, deep metallic blackish-green. Legs whitish-ochreous, anterior femora dark fuscous above. Forewings elongate-triangular, costa moderately arched, apex obtuse, hindmargin obliquely rounded; deep yellow; a black almost basal dot on costa and another in middle near base; five small round reddish spots in disc, first before  $\frac{1}{4}$ , second beyond and above first, third beyond and below second, fourth central, fifth beyond fourth; sometimes a sixth between fourth and fifth: cilia deep yellow. Hindwings and cilia deep ochreous-yellow.

Cape York, Cooktown, and Bowen, Queensland; three specimens (Coll. Macleay). Also from Ceram and Amboina.

## 37. DIGAMA, Moore.

Tongue well-developed. Antennæ in ♂ moderately bipectinated, apex simple. Palpi moderately long, ascending, smoothly scaled, terminal joint moderately long, cylindrical. Forewings in ♂ with a dilated impression beneath on inner margin before middle; 2 from  $\frac{2}{3}$ , 7 and 8 out of 9, 10 connected by bar with 9. Hindwings in ♂ with oblique strigil on costa above before middle; 3 and 4 from a point, 6 and 7 short-stalked, 8 closely approximated to cell towards middle.

115. *Dig. marmorea*, Butl.

(*Digama marmorea*, Butl., Trans. Ent. Soc. Lond. 1877, 363; *D. piepersiana*, Snell., Tijds. v. Ent. 1879, 81, pl. VII, 2.)

♂ ♀. 26-31 mm. Head fuscous-whitish, face dark fuscous. Palpi fuscous-whitish, with three dark fuscous bands. Antennæ dark fuscous. Thorax fuscous-whitish, patagia and two posterior dots dark fuscous. Abdomen ochreous-yellow, with dorsal and lateral series of black spots. Legs dark fuscous ringed with whitish, posterior pair whitish spotted with dark fuscous. Forewings elongate, moderately dilated, costa slightly arched, apex rounded, hindmargin rather obliquely rounded; whitish, fuscous-tinged; a dark fuscous sub-triangular blotch extending along costa from base to  $\frac{2}{5}$ , reaching half across wing; a dark fuscous oblique strigula from costa at  $\frac{2}{5}$ , and another at  $\frac{2}{3}$ ; two black dots obliquely placed in disc at  $\frac{1}{3}$ , two others in middle, a fifth at  $\frac{2}{3}$ , and a sixth beyond this; two black dots on inner margin obliquely before these respectively, in ♂ forming two spots on dilation; an irregular quadrate dark fuscous blotch on inner margin about  $\frac{2}{3}$ , posterior angle connected with costa at  $\frac{4}{5}$  by an irregularly sinuate subdentate dark fuscous line; an irregular narrow anteriorly subdentate suffused dark fuscous hindmarginal fascia: cilia fuscous-whitish, with a median row of dark fuscous spots. Hindwings light ochreous-yellow; a dark fuscous discal dot before middle; a dark fuscous apical spot; cilia whitish-yellow, round apex grey on basal half.

Duaringa, Queensland; sent rather commonly by Mr. G. Barnard. Also from Celebes.

## SYNTOMIDIDAE.

Ocelli present. Antennæ about  $\frac{2}{3}$ , thick. Maxillary palpi absent. Posterior tibiæ with all spurs present. Frenum developed. Forewings with 1 simple at base, 7, 8, 9, and 10 stalked. Hindwings with 1c absent, 8 absent.

The absence of vein 8 of the hindwings is the main characteristic of the family. In all the species here described the form of wing is practically identical, except that in *Agaphthora* the hindwings are relatively much smaller, and it is therefore not mentioned specifically; the forewings are elongate-triangular, costaposteriorly arched, apex obtuse, hindmargin very oblique, somewhat rounded, slightly sinuate beneath, inner margin short; hindwings short, small, rounded-triangular. In the specific descriptions a normal type of marking is assumed, consisting of five spots in the forewings, first beneath lower median towards base, second above lower median before middle, third beneath lower median under second, fourth below costa towards apex, fifth between fourth and anal angle, evenly bisected by a black vein (3); and two in hindwings, first towards base, second beyond middle, both generally bisected by a vein. The palpi, legs, and cilia of wings are always blackish, and therefore not specifically mentioned. The collar is reckoned with the head.

Most of the species are tropical. There are only four Australian genera, all also Indo-Malayan; in all vein 4 of the hindwings is absent.

A Hindwings with vein 3 also absent.

- a. Hindwings with vein 6 absent .....38. *Agaphthora*.
- b.       ,,               ,,       present .....41. *Euchromia*.

B. Hindwings with vein 3 present.

- a. Veins 3 and 5 of hindwings from a point.39. *Hydrusa*.
- b.       ,,               ,,       widely remote...40. *Choromeles*.



## 38. AGAPHTHORA, n. g.

Tongue well-developed. Antennæ filiform, in ♂ very shortly ciliated. Palpi short, porrected, loosely scaled. Spurs very short. Forewings with vein 2 from  $\frac{3}{4}$ , 4 and 5 stalked, 7 out of 8 below 11, 9, 10, and 11 out of 8. Hindwings with veins 3, 4, and 6 absent.

116. *Agaph. melanora*, n. sp.

♀. 26-27 mm. Head black, face and sides orange. Antennæ black. Thorax black, patagia orange except towards apex. Abdomen black, lateral margin orange. Forewings black; spots moderate, transparent, colourless; first and third confluent into a rather elongate wedge-shaped spot, lower margin subconcave; second wedge-shaped, nearly as long; fourth wedge-shaped, upper angle cut off by a black vein; fifth subovate. Hindwings extremely small; first spot absent; second moderate, transparent, suboval, unevenly bisected.

Cape York, Queensland; two specimens (Coll. Macleay).

117. *Agaph. sphenodes*, n. sp.

♂ ♀. 25-27 mm. Only differs as follows: Head orange, crown more or less blackish. Thorax black, with a posterior orange spot, patagia orange, except towards apex. Abdomen orange, segments narrowly black at base, anal segment wholly black. Forewings with first spot more elongate towards base. Hindwings with spot evenly bisected.

Cairns, Queensland; three specimens (Coll. Macleay).

## 39. HYDRUSA, Walk.

Tongue well-developed. Antennæ in ♂ bidentate, dentations shortly ciliated. Palpi short, porrected, loosely scaled. Spurs very short. Forewings with vein 2 from about  $\frac{2}{3}$ , 4 and 5 approximated at base or from a point, 7 out of 8 below 10, 9, 10, and 11 out of 8. Hindwings with vein 4 absent, 3 and 5 from a point or short-stalked, 6 absent.

In the ♀ the anal hairs appear to be always whitish-ochreous ; allowance must be made for this when the anal segment is described as wholly black.

- A. Forewings with spots wholly absent .....B.  
 " " present as usual.....C.  
 B. Anal segment black.....139. *bicolor*.  
 " " orange except base .....138. *eschatias*.  
 C. Forewings with first and third spots wholly  
 confluent .....118. *ecliptis*.  
 " " " not " D.  
 D. Forewings with spots colourless.....E.  
 " " more or less orange ...F.  
 E. Thorax with orange spots .....120. *pyrrhoder*a.  
 " wholly black .....121. *hyalota*.  
 F. Abdomen with ante-penultimate segment  
 wholly black .....G.  
 " " " not " K.  
 G. Abdomen with ventral surface black throughout 123. *cyanura*.  
 " " " not " H.  
 H. Hindwings with first spot obsolete or very small 123. *leucacma*.  
 " " rather large, cloudy.....130. *macroplaca*.  
 K. Antennæ with apex white.....L.  
 " " black .....P.  
 L. Forewings with fourth spot connected by a  
 similar spot with fifth .....119. *stelotis*.  
 " " not " .....M.  
 M. Hindwings with spots touching .... 134. *aperta*.  
 " " remote .....N.  
 N. Hindwings with upper part of first spot obsolete 137. *phepsalotis*.  
 " " moderate .....O.  
 O. Hindwings with upper part of second spot dot-  
 like or absent .....136. *intensa*.  
 " " present, rather small...135. *annulata*.  
 P. Hindwings with spots touching.....Q.  
 " " separate .....T.

- Q. Forewings with fourth spot connected by an additional spot with fifth.....R.  
 " " not " ...S.  
 R. Additional spot as long as fourth .....131. *chlorometis*.  
 " half as long " .....133. *nesothesis*.  
 S. Abdomen with penultimate segment wholly black .....125. *paraula*.  
 " " not " .....126. *anepsia*.  
 T. Abdomen with two ante-apical segments green-black beneath .....132. *mochlotis*.  
 " " not " " ...U.  
 U. Abdomen with penultimate segment wholly black .....124. *antitheta*.  
 " " not " " .....W.  
 W. Abdomen with anal segment black with a small orange spot .....127. *pyrocoma*.  
 " " orange except base .....X.  
 X. Forewings with a small additional spot between fourth and fifth.....128. *synedra*.  
 " without " " .....129. *hesperitis*.

118. *Hydr. ecliptis*, n. sp.

♂ ♀. 31-36 mm. Head orange, space between antennæ black. Antennæ black. Thorax black, posterior extremity sometimes orange. Abdomen orange, base of segments black, ventral surface black throughout, apical segment wholly black. Forewings black; spots moderate, pale dull orange, reddish-tinged, semitransparent; first coalescing with third to form a large irregular oblong spot: second elongate-trapezoidal or wedge-shaped; fourth elongate, connected by a similar additional spot with fifth; fifth roundish. Hindwings black; spots semitransparent, pale orange, margins darker: first large, roundish, occupying nearly basal half of wing, not reaching base, bisecting vein black at base only; second moderate, irregular, confluent in disc with first, veins orange.

Cooktown, Queensland; eight specimens (Coll. Lucas and Macleay).

119. *Hydr. stelotis*, n. sp.

♂ ♀. 32 mm. Head orange, with small dark fuscous spot between antennæ. Thorax blackish. Antennæ black, apex white. Abdomen orange, segments narrowly black at base, anal segment wholly black. Forewings blackish; spots moderate, orange; first subquadrate; second suboblong; third oblique-transverse; fourth small, rather elongate, connected by a similar spot with fifth; fifth small, subcordate, lower section smaller. Hindwings blackish, spots orange; first rather large, roundish, reaching inner margin; second small, nearly or quite touching first in disc.

Cooktown, Queensland; two specimens (Coll. Macleay).

120. *Hydr. pyrrhoderia*, n. sp.

♂ ♀. 22-25 mm. Head black, face orange, collar and back of crown reddish-orange. Antennæ black, tip white. Thorax black, a posterior spot and a small spot on patagia in middle orange. Abdomen deep orange, base of segments blue-black, ventral surface mostly black throughout, anal segment wholly blue-black. Forewings black, spots rather small, semitransparent, colourless; first roundish; second larger, subtriangular; third diamond-shaped; fourth elongate, posterior extremity often surmounted by a dot; fifth roundish; rarely a small additional spot between fourth and fifth. Hindwings black; spots semitransparent, colourless; first moderate, irregular, not quite reaching base or margins, intersecting veins dull orange; second with upper section very small or absent, lower moderate, oval.

Thursday Island, Torres Straits; Cape York, Cooktown, and Cairns, Queensland; nine specimens (Coll. Lucas and Macleay).

121. *Hydr. hyalota*, n. sp.

♂. 32 mm. Head orange, with a blackish spot between antennæ. Antennæ and thorax black. Abdomen orange, base of segments narrowly greenish-black, anal segment wholly greenish-black. Forewings greenish-black; spots moderate, hyaline, colourless;

first small, round ; second suboval ; third diamond-shaped ; fourth elongate, narrow ; fifth roundish. Hindwings greenish-black ; spots hyaline, colourless ; first roundish, almost wholly beneath lower median vein ; second roundish, upper section very small.

Cape York, Queensland ; one specimen (Coll. Macleay).

122. *Hydr. leucacma*, n. sp.

♂ ♀ 33.42 mm. Head orange ; a transverse line between antennæ dark fuscous. Antennæ black, tip white. Thorax blue-black, with a posterior orange spot. Abdomen iridescent-orange, base of segments blue-black, three apical segments wholly blue-black. Forewings black ; spots moderate, semitransparent, pale dull orange ; first rather small, subquadrate ; second irregular ; third diamond-shaped, upper angle truncate ; fourth very elongate, sometimes surmounted posteriorly by a dot ; fifth subcordate. Hindwings black ; first spot very small, cloudy, or obsolete ; second moderate, semitransparent, tinged with dull orange, subcordate, unevenly bisected.

Cairns, Queensland ; four specimens (Coll. Lucas and Macleay).

123. *Hydr. cyanura*, n. sp.

♂. 30 mm. Head orange, with a few dark fuscous scales between antennæ. Antennæ black. Thorax black, posteriorly with a few orange scales. Abdomen orange, base of segments black, ventral surface black throughout, three apical segments wholly black. Forewings black ; spots moderate, semitransparent, tinged with pale dull orange ; first rather small, subquadrate ; second elongate-trapezoidal ; third diamond-shaped, upper angle truncate ; fourth very elongate ; fifth subcordate. Hindwings black ; spots semitransparent, tinged with pale orange ; first rather large, subquadrate, nearly touching base, reaching from inner margin to lower median vein, suffused with orange beneath ; second moderate, rounded-triangular, unevenly bisected.

Thursday Island, Torres Straits ; one specimen (Coll. Lucas).



124. *Hydr. antitheta*, n. sp.

♂. 30-35 mm. Head orange, with a fuscous spot between antennæ. Antennæ and thorax blackish. Abdomen orange, base of segments blue-black, two apical segments wholly black. Forewings purple-blackish; spots moderate, semitransparent, whitish-ochreous, slightly orange-tinged; first subquadrate; second similar; third subtriangular, sometimes surmounted by a dot; fourth very elongate, posterior extremity surmounted by an elongate dot; fifth subcordate. Hindwings blackish; spots pale dull orange, partially semitransparent; first moderately large, irregular, ill-defined, nearly or quite touching margins, upper section smaller; second moderate, roundish.

Gayndah, Queensland; two specimens (Australian Museum).

125. *Hydr. paraula*, n. sp.

♀. 28 mm. Head orange, with a blackish transverse line between antennæ. Antennæ black. Thorax black, with a small orange posterior spot. Abdomen orange, base of segments broadly violet-black, two apical segments wholly violet-black. Forewings black; spots moderately large, semitransparent, pale dull orange; first trapezoidal; second similar; third transverse-suboblong or subtriangular, sometimes surmounted by a dot; fourth very elongate, posterior extremity sometimes surmounted by a dot; fifth roundish. Hindwings black; spots semitransparent, pale dull orange; first deeper orange, occupying basal  $\frac{2}{3}$ , touching margins but not base, bisecting vein orange; second moderate, rounded-triangular, unevenly bisected, anterior angle acute, touching first.

Cooktown, Queensland; two specimens (Coll. Lucas and Macleay).

126. *Hydr. anepsia*, n. sp.

♂. 28 mm. Head orange, space between antennæ dark fuscous. Antennæ and thorax black. Abdomen orange, base of segments black, anal segment wholly black. Forewings blackish; spots

moderate, semitransparent, pale dull orange; first very small, rounded; second trapezoidal; third subtriangular; fourth elongate, very obscure; fifth roundish. Hindwings blackish; spots semitransparent, pale dull orange; first occupying basal  $\frac{2}{3}$ , not quite reaching base or costa, outer edge irregular, bisecting vein blackish; second moderate, rounded-triangular, anterior angle touching first.

Cooktown, Queensland; one specimen (Coll. Macleay).

127. *Hydr. pyrocoma*, n. sp.

♂. 42-46 mm. Head deep reddish-orange, space between antennæ blackish. Antennæ black. Thorax black, with a small orange posterior spot. Abdomen orange, base of segments black, anal segment black except a very small orange spot. Forewings black; spots moderate, deep orange, thinly scaled; first rounded-quadrate; second rounded-oblong; third irregular diamond-shaped, upper angle truncate, upper side surmounted by a small spot; fourth very elongate, surmounted by a small elongate spot, and connected with fifth by a small subcrescentic spot beneath posterior extremity; fifth large, roundish. Hindwings black; spots deep orange, thinly scaled; first large, occupying basal  $\frac{2}{3}$ , not reaching margins, outer edge irregular, bisecting vein black; second rather large, round, upper section smaller.

Rockhampton, Queensland; two specimens (Coll. Macleay).

128. *Hydr. synedra*, n. sp.

♂ ♀. 33-41 mm. Head orange, with dark fuscous spot between antennæ. Antennæ black. Thorax black, with a small posterior orange spot. Abdomen orange, base of segments black. Forewings violet-black; spots moderately large, orange, thinly scaled; first rounded-quadrate; second trapezoidal, variable; third irregular-oblong, upper angle produced and truncate, upper side sometimes surmounted by a dot; fourth very elongate, sometimes surmounted by an obscure dot, connected with fifth by a small subcrescentic spot beneath posterior extremity;

fifth subcordate. Hindwings violet-black ; spots orange, thinly scaled ; first occupying basal  $\frac{2}{5}$ , outer edge irregular, bisecting vein orange ; second moderate, transverse-oval, upper section smaller.

Rockhampton, Queensland ; four specimens (Coll. Macleay).

129. *Hydr. hesperitis*, n. sp.

♂ ♀. 40-46 mm. Head orange, a transverse line between antennæ dark fuscous. Antennæ blackish. Thorax blackish, with an orange posterior spot. Abdomen orange, base of segments blue-black. Forewings greenish-black ; spots moderate, dull orange ; first irregularly subquadrate ; second similar ; third diamond-shaped, upper angle acutely produced, upper sides sometimes surmounted by a dot ; fourth very elongate ; fifth subcordate. Hindwings blackish ; spots dull orange ; first occupying basal  $\frac{2}{5}$ , not quite reaching base, outer edge twice deeply dentate, bisecting vein orange ; second moderate, suboval, upper section much smaller.

Cape York, Queensland ; three specimens (Australian Museum).

130. *Hydr. macrolaca*, n. sp.

♀. 32 mm. Head orange, space between antennæ dark fuscous. Antennæ black (apex broken). Thorax blackish, with a posterior orange spot. Abdomen orange, base of segments black, three apical segments wholly green-black, ventral surface mostly blackish throughout. Forewings greenish-black ; spots moderate, light dull orange ; first subquadrate ; second trapezoidal ; third curved-elongate, surmounted by a small additional spot ; fourth very elongate, surmounted by a small elongate spot, and with a dot beneath posterior extremity ; fifth roundish. Hindwings blackish ; spots pale dull orange, cloudy and obscurely defined ; first occupying basal  $\frac{2}{5}$ , bisecting vein black ; second rather small, roundish, upper section almost obsolete.

Sydney, New South Wales, in November ; one specimen received from Mr. G. H. Raynor.

131. *Hydr. chlorometis*, n. sp.

♂. 21 mm. Head light ochreous-yellow, with a dark fuscous line between antennæ. Antennæ blackish. Thorax blackish, a posterior spot and a spot on patagia light ochreous-yellow. Abdomen light ochreous-yellow, base of segments narrowly blackish, sides of anal tuft blackish. Forewings blackish; spots rather large, transparent, yellowish-tinged; first quadrate; second elongate-trapezoidal; third curved-oblong, surmounted by a smaller triangular additional spot; fourth very elongate, surmounted by a dot, and connected with fifth by a similar equally elongate spot; fifth roundish. Hindwings blackish; spots transparent, yellowish-tinged; first large, occupying basal half of wing, not quite reaching base, outer edge rounded; second moderately large, rounded-triangular, confluent with first in disc.

Glen Innes (3,000 feet), New South Wales; one specimen in December.

132. *Hydr. mochlotis*, n. sp.

♂ ♀. 33-36 mm. Head orange, with some fuscous scales between antennæ. Antennæ black. Thorax black, with a small orange posterior spot. Abdomen iridescent-orange, base of segments narrowly violet-black, two ante-apical segments green-black on sides and beneath, penultimate in ♀ above also, base of anal segment green-black. Forewings black; spots large, thinly scaled, light orange; first subquadrate; second similar; third irregular, elongate-pentagonal, surmounted by a small elongate spot; fourth very elongate, surmounted by a very small elongate spot, and connected with fifth by a small spot beneath its posterior extremity; fifth sub-cordate. Hindwings black; spots thinly scaled, light orange; first very large, occupying basal half of wing, outer edge irregularly rounded, bisecting vein not black; second rather large, roundish, almost touching costa veins not black.

South Australia; three specimens (Coll. Macleay).

133. *Hydr. nesothetis*, n. sp.

♂. 40-46 mm. Head orange-yellow, with a dark fuscous band between antennæ. Antennæ blackish. Thorax purple-black, with a posterior orange-yellow spot. Abdomen orange-yellow, base of segments purple-blackish. Forewings purple-blackish; spots rather large, thinly scaled, light ochreous-yellow; first trapezoidal; second similar, more elongate; third curved-suboblong, surmounted by a smaller triangular additional spot; fourth elongate, surmounted posteriorly by a linear spot, and connected with fifth by a rather small broad-crescentic spot beneath posterior extremity; fifth roundish. Hindwings purple-blackish: spots large, thinly scaled, light ochreous-yellow; first occupying basal half of wing, outer edge irregularly rounded; second roundish, confluent with first in disc above and below middle, enclosing a small spot of groundcolour.

Hay, New South Wales; two specimens.

134. *Hydr. aperta*, Walk.

(*Syntomis aperta*, Walk. Suppl. 72.)

♂. 40-44 mm. Head orange, crown broadly black. Antennæ black, apex white. Thorax black. Abdomen orange, base of segments blue-black. Forewings purplish-black; spots moderate, orange; first subquadrate; second trapezoidal; third irregular trapezoidal, anterior angle produced and truncate, upper side sometimes surmounted by an additional dot; fourth very elongate, posterior extremity surmounted by a dot; fifth roundish. Hindwings purplish-black; spots rather large, orange; first occupying basal  $\frac{2}{3}$ , outer edge strongly rounded, bisecting vein black or sometimes orange; second roundish, touching first in disc.

Bathurst (2300 feet), New South Wales; in March; three specimens.

135. *Hydr. annulata*, F.

(*Zygaena annulata*, F.E.S. 389; *Syntomis annulata*, Boisd. Zyg. 122, pl. VII, 8, pl. VIII, 2; *Hydrusa cingulata*, Butl., Journ. Linn. Soc. 1876, 352; *H. nigriceps*, ib. 352.)

♂ ♀. 34-40 mm. Head orange, crown broadly black. Antennæ black, apex white. Thorax black. Abdomen orange, base of



segments greenish-black. Forewings greenish-black; spots moderate, thinly scaled, orange; first subquadrate; second trapezoidal; third irregular diamond-shaped; fourth elongate, sometimes surmounted by a variable dot; fifth roundish. Hindwings greenish-black; spots moderate, orange; first occupying basal third, outer edge somewhat irregular, bisecting vein black; second irregular, upper section smaller or nearly equal.

Maryborough, Queensland; Sydney, New South Wales; also from Tasmania; in November, March, and April, common.

136. *Hydr. intensa*, Butl.

(*Hydrusa intensa*, Butl., Journ. Linn. Soc. 1876, 353.)

♂ ♀. 25-30 mm. Head black on crown, face orange, collar reddish-orange. Antennæ black, apex white. Thorax black. Abdomen deep orange, base of segments black, sides of anal segment black. Forewings greenish-black; spots rather small, semitransparent, reddish-orange; first subquadrate; second similar; third diamond-shaped; fourth suboblong, rarely surmounted by a dot; fifth roundish. Hindwings greenish-black; spots reddish-orange; first rather small, not reaching margins, bisecting vein black; second thinly scaled, small, oval, upper section dot-like or absent.

Cooktown and Rockhampton, Queensland; Grafton, Sydney, and Wollongong, New South Wales; in November and April, common, sometimes abundant.

137. *Hydr. phepsalotis*, n. sp.

♂. 29-33 mm. Head black on crown, face orange, collar reddish-orange. Antennæ black, apex white. Thorax black. Abdomen reddish-orange, base of segments black, sides of anal segment black. Forewings greenish-black; spots small or very small, semitransparent, dull orange; first very small, roundish; second subquadrate; third irregular diamond-shaped, variable; fourth suboval; fifth roundish. Hindwings greenish-black; spots dull orange; first moderate or small, suboval, lying entirely beneath lower median, therefore not bisected; second small or very small, oval, upper section absent, sometimes wholly absent.

Maryborough, Queensland; Wollongong, New South Wales; four specimens (Coll. Macleay and Australian Museum).

138. *Hydr. eschatius*, n. sp.

♂. 32 mm. Head black on crown, face orange, collar reddish-orange. Antennæ black, apex white. Thorax black. Abdomen orange, base of segments narrowly black. Forewings black; spots wholly absent. Hindwings black; first spot very small, orange; second absent.

One specimen, of uncertain locality (Coll. Macleay).

139. *Hydr. bicolor*, Walk.

(*Euchromia (Hydrusa) bicolor*, Walk. Bomb. 255, Butl. Ill. Het. I, 19, pl. IX, 1.)

♂ ♀. 29-32 mm. Head deep reddish-orange, with a narrow black line between antennæ. Antennæ black, apex white. Thorax black. Abdomen deep orange, base of segments narrowly black, anal segment wholly black. Forewings and hindwings black; spots wholly absent.

Cairns, Queensland; six specimens (Coll. Macleay).

40. CHOROMELES, n.g.

Tongue well-developed. Antennæ in ♂ shortly bipectinated. Palpi short, porrected, loosely scaled. Spurs very short. Forewings with vein 2 from about  $\frac{2}{3}$ , 4 and 5 approximated at base, 7 out of 8 below 10, 9, 10, and 11 out of 8. Hindwings with vein 4 absent, 3 and 5 remote at base, 6 absent.

This genus has been previously characterised by Butler under the name of *Trianeura*, a bad orthographical blunder for *Trineura*, which name is untenable, having been previously employed for a genus of *Diptera*; I therefore alter it.

140. *Chor. geographica*, n. sp.

♂. 21-26 mm. Head orange, sometimes with a fine dark fuscous line between antennæ. Antennæ black. Thorax blackish, with moderately large anterior and posterior orange spots. Abdomen orange, base of segments blackish, basal segment wholly

blackish. Forewings blackish ; spots moderate, semitransparent, tinged with pale yellowish-orange ; first very elongate, anteriorly dilated, extending beneath third to its posterior edge, sometimes with a small linear mark beneath it posteriorly ; second trapezoidal ; third rather small, rounded-triangular, compressed between first and second ; fourth more or less elongate, sometimes surmounted by a dot, often connected with fifth by a variable small or elongate spot which is sometimes absent ; fifth roundish. Hindwings blackish ; spots orange ; first occupying nearly basal half, not reaching base or inner margin, outer edge indented in middle, vein black ; second small, oval, not bisected, sometimes with additional dots above and below.

Queensland ; four specimens. One specimen has in one forewing an abnormal branch rising out of vein 1 beyond middle on upper side, an incidental deformity.

141. *Chor. strepsimeris*, n. sp.

♂. 32 mm. Head orange, with a dark fuscous line between antennæ. Antennæ black. Thorax black, with anterior and posterior orange spots, patagia orange except towards apex. Abdomen orange, base of segments black. Forewings blackish ; spots moderate, semitransparent, tinged with dull orange, margins darker ; first irregular-elongate, extending beneath third ; second rather small, subquadrate ; third rather small, roundish ; fourth suboblong, connected with fifth by a small spot beneath anterior extremity ; fifth subcordate. Hindwings blackish ; spots semitransparent, tinged with dull orange ; first divided into two, upper small, quadrate, beneath costa at  $\frac{1}{3}$ , lower moderate, somewhat diamond-shaped, below median vein, almost reaching base and inner margin ; second moderate, transverse-ovate, evenly bisected.

Bowen, Queensland ; one specimen (Coll. Macleay).

41. EUCHROMIA, Hb.

Tongue well-developed. Antennæ in ♂ bipectinated, apex simple. Palpi rather short, porrected, with appressed scales, somewhat pointed. Spurs short. Forewings with vein 2 from

$\frac{3}{4}$ , 4 and 5 closely approximated or from a point, 6 near or from a point with 9, 7 and 8 out of 9 below 7, 11 closely approximated to 9, sometimes connected with it at a point near base. Hindwings with veins 3 and 4 absent, 2 and 5 from a point or short-stalked, 6 and 7 from a point or short-stalked.

142. *Euchr. polymena*, L.

(*Sphinx polymena*, L. Syst. Nat. ii, 106, Cr. 13 D.)

♀. 44 mm. (Head absent; should be head blue, antennæ and palpi black, collar red.) Thorax black, with a white spot on shoulder, and white spots beneath. Abdomen black, basal segment red, second and third posteriorly blue, fourth and fifth crimson-red except at base, sixth to eighth posteriorly deep blue. Coxæ white. Forewings black; spots deep ochreous-yellow, moderate; first subquadrate; second wedge-shaped; third trapezoidal, touching second; fourth elongate, connected by a similar spot with fifth; fifth subcordate; base and a small discal dot deep blue. Hindwings black; spots moderately large, deep ochreous-yellow; first almost basal, second transverse-oval, both trisected, reaching costa but not inner margin.

North Australia; one specimen (Coll. Macleay). Also from Ceylon and India.

143. *Euchr. irus*, Cr.

(*Sphinx irus*, Cr. 368 A; *Glaucopis irius*, Boisd. Voy. Astr. V, 192; *G. ganymede*, Dbld., Lort Disc. 519, pl. III, 3.)

♂. 49-52 mm. Head and thorax metallic blue, face and a streak behind eye white. Antennæ black. Abdomen deep crimson, base of segments narrowly black above, three basal segments metallic blue above except base, coxæ white. Forewings black; base, a discal crescentic spot, and a very slender dorsal streak metallic blue; spots transparent, colourless; first very small, oval, sometimes obsolete; second and third confluent into a transverse-oblong blotch, unevenly bisected; fourth rather small, trapezoidal, sometimes with an additional dot beneath; fifth subcordate. Hindwings black; spots moderately large, transparent, colourless; first almost basal; second transverse-oval; both trisected, reaching costa but not inner margin.

var. *a.* (*irius*, Boisd.) Basal segment of abdomen ochreous-white above.

var. *β.* (*ganymede*, Dbld.) Three basal segments of abdomen wholly black above.

Cape York and Cooktown, Queensland; common (Coll. Macleay and Australian Museum). Also from Ceram and Celebes.

### ZYGAENIDAE.

Ocelli present. Antennæ about  $\frac{3}{4}$ , thickened or pectinated. Maxillary palpi absent. Frenum developed. Forewings with 1 simple or furcate at base. Hindwings with vein 8 anastomosing or connected with upper margin of cell.

The Australian species belong entirely to two genera of the more ancestral section of the family, the other and later section being principally developed in Europe.

a. Hindwings with vein 6 absent.....42. *Hestiochora*.

b. „ „ „ present .....43. *Procris*.

#### 42 HESTIOCHORA, n.g.

Tongue well-developed. Antennæ thick, in ♂ bipectinated, apex simple. Palpi short, porrected, rough-haired beneath, pointed. Posterior tibiæ without middle-spurs. Forewings with vein 1 furcate at base, 2 from  $\frac{5}{6}$ , all veins separate. Hindwings with vein 1c present, 4 and 5 separate or from a point or stalked, 6 absent, 8 anastomosing with upper margin of cell from before to beyond middle.

A. Collar black.....147. *rufiventris*.

B. „ not black.

a. Face orange.....144. *xanthocoma*.

b. „ black.

1. Abdominal band red.....145. *erythrota*.

2. „ „ whitish-ochreous.....146. *tricolor*.

#### 144. *Hest. xanthocoma*, n. sp.

♂. 18 mm. Head, palpi, and collar bright orange. Antennæ blue-black, pectinations yellow. Thorax blue-black. Abdomen



blue-black, yellowish beneath, three basal segments wholly ochreous-yellow, anal segment with a large ochreous-yellow dorsal spot. Legs dark violet-fuscous, beneath yellowish. Forewings extremely elongate-triangular, costa sinuate, apex rounded, hindmargin extremely obliquely rounded; blackish-fuscous, violet-tinged; a thinly scaled ochreous-yellow streak beneath costa from near base to  $\frac{1}{4}$ , acutely attenuated posteriorly; a broad irregular anteriorly semihyaline ochreous-yellow median longitudinal streak from near base to  $\frac{2}{3}$ ; cilia dark fuscous. Hindwings elongate-ovate; light ochreous-yellow, becoming semihyaline towards disc below middle; a rather narrow anteriorly suffused blackish hindmarginal fascia; cilia dark fuscous; veins 4 and 5 separate.

Duaringa, Queensland; one specimen sent by Mr. G. Barnard.

145. *Hest. erythrota*, n. sp.

♂. 22 mm. Head, antennæ, thorax, and legs black; collar and palpi red. Abdomen black, three basal segments, and basal ring of anal segment red. Forewings extremely elongate-triangular, costa sinuate, apex rounded, hindmargin very obliquely rounded; black, rather thinly scaled in middle of disc; a subcostal attenuated streak from near base to  $\frac{1}{3}$ , and a broader irregular submedian streak from base to middle pale reddish, semitransparent; a roundish red spot in disc at  $\frac{2}{3}$ ; cilia blackish. Hindwings elongate-ovate; pale red, semitransparent; a rather broad blackish hindmarginal fascia, thinly scaled on a patch below middle; cilia blackish; veins 4 and 5 separate.

Sydney and Goulburn, New South Wales; in October; two specimens (Coll. Raynor and Macleay).

146. *Hest. tricolor*, Walk.

(*Procris tricolor*, Walk. Bomb. 111, Butl. Ill. Het. I, pl. VI, 6.)

♂ ♀. 18-27 mm. Head black, in ♀ red on crown. Palpi and collar red. Antennæ black. Thorax black, spotted with white beneath, tips of patagia sometimes whitish. Abdomen black, beneath whitish-ochreous, three basal segments wholly whitish-

ochreous except at apex above, anal segment with basal whitish-ochreous ring. Legs blue-black, anterior coxae white. Forewings extremely elongate-triangular, costa sinuate, apex rounded, hind-margin very obliquely rounded; blackish-fuscous; a hyaline streak beneath costa from near base to  $\frac{1}{3}$ , acutely attenuated posteriorly; a hyaline median streak from near base, gradually dilated and becoming obsolete beyond middle of disc: cilia dark fuscous. Hindwings elongate-ovate; almost hyaline, very thinly scaled; an irregular suffused dark fuscous hindmarginal fascia, forming a blotch at apex, very narrow in middle, somewhat dilated towards anal angle; cilia dark fuscous; veins 4 and 5 separate.

Sydney, New South Wales; Fernshaw, Victoria; Deloraine, Tasmania; Mount Lofty, South Australia; in November and December, not uncommon. Mr. Masters informs me that it especially frequents the flowers of *Angophora*.

147. *Hest. rufiventris*, Walk.

(*Procris rufiventris*, Walk. Bomb. 110, Butl. Ill. Het. I, 15 pl. VI, 7.)

♂ ♀. 17-18 mm. Head, palpi, antennæ, thorax, and legs blackish. Abdomen orange, base and apex blackish. Forewings elongate-triangular, costa almost straight, apex rounded, hind-margin very obliquely rounded; wholly blackish. Hindwings oblong-ovate; wholly blackish, disc thinly scaled; veins 4 and 5 from a point or short-stalked.

Albany, West Australia; four specimens (Coll. Macleay).

43. PROCRIS, F.

Tongue well-developed. Antennæ in ♂ bipectinated, apex simple, sometimes considerably thickened (not in Australian species), in ♀ rather thick throughout. Palpi short, porrected, filiform, pointed. Posterior tibiæ without middle-spurs. Forewings with vein 1 furcate at base, 2 from about  $\frac{3}{4}$ , all veins separate. Hindwings with vein 1 c present, 4 absent or present, 3 rarely stalked with 4 or 5, 6 and 7 approximated at base, 8 anastomosing with upper margin of cell from before to beyond middle.

The structure of veins 3-5 of the hind-wings varies considerably in different species, but the differences appear specific only.

A. Abdomen very broad, strongly flattened 148. *dolens*

B. „ moderate.

a. Abdomen with lateral margins  
white ..... 149. *leucopleura*.

b. Abdomen with lateral margins not  
white.

1. Forewings with three pale spots 151. *trimacula*

2. „ unicolorous.

i. Forewings bluish or greenish.

\* Hindwings with 3 and 5  
from a point ..... 150. *coronias*.

\*\* Hindwings with 3 and 5  
remote.

† Hindwings ovate, evenly  
scaled ..... 155. *viridipulverulenta*.

†† Hindwings elongate-  
ovate, thinly scaled  
in disc below middle .. 154. *apicalis*.

ii. Forewings without blue or  
green tinge.

\* Forewings bright coppery 156. *cuprea*.

\*\* „ blackish.

†. Abdomen bright green 152. *cyanota*.

†† „ bright cop-  
pery ..... 153. *subdolosa*.

Sect. A. Vein 4 of hindwings present.

148. *Procr. dolens*, Walk.

(*Procris dolens*, Walk. Bomb. 112, Butl. Ill. Het. I, 14, pl. VI, 4.)

♂ ♀. 13-14 mm. Head, palpi, antennæ, thorax, abdomen, and legs deep blackish-green or blackish-indigo; antennal pectinations  $1\frac{1}{2}$ ; abdomen broadly flattened. Forewings elongate, suboblong, somewhat dilated, costa gently arched, apex rounded, hindmargin

obliquely rounded ; deep blackish-green or blackish-indigo ; cilia dark grey, tips pale. Hindwings elongate-ovate ; blackish-grey, rather thinly scaled ; veins 3 and 4 from a point or short-stalked, 5 remote.

Mount Macedon, Victoria ; Campbelltown and Hobart, Tasmania ; Mount Lofty, South Australia ; in December, rather common.

Sect B. vein 4 of hindwings absent.

149. *Procr. leucopleura*, n. sp.

♀. 18-19 mm. Head, antennæ, and thorax dark fuscous, palpi and lower part of face white. Abdomen dark fuscous, lateral margins white. Legs white, tarsi fuscous. Forewings elongate, gradually dilated, costa posteriorly gently arched, apex rounded, hindmargin very obliquely rounded ; dark fuscous ; cilia paler towards tips. Hindwings elongate-ovate ; dark fuscous ; disc thinly scaled, becoming semitransparent towards base ; veins 3 and 5 from a point.

Sydney, New South Wales ; two specimens (Coll. Macleay).

150. *Procr. coronias*, n. sp.

♂ ♀. 14-17 mm. Head, palpi, antennæ, thorax, abdomen, and legs blackish-green or blackish-indigo ; antennal pectinations 3. Forewings elongate-triangular, costa slightly arched, apex obtuse, hindmargin obliquely rounded ; blackish-green or blackish-indigo : cilia dark grey, tips pale. Hindwings ovate ; blackish-grey ; disc rather thinly scaled, especially towards base ; veins 3 and 5 from a point or short-stalked.

Maryborough, Queensland ; Sydney, New South Wales ; Mount Macedon, Victoria ; in November, December, and March, common.

151. *Procr. trimacula*, Walk.

(*Procris trimacula*, Walk. Bomb. 110, Butl., Ill. Het. I, 13, pl. VI, 8.)

♂ ♀. 18-20 mm. Head metallic green, crown black. Palpi, antennæ, and legs blackish, antennal pectinations 6. Thorax

black, collar and abdomen brilliant metallic coppery, anal tuft in ♂ whitish, in ♀ whitish-ochreous. Forewings elongate-triangular, costa nearly straight, apex rounded, hindmargin very obliquely rounded; blackish; three very cloudy obscure dull ochreous-whitish discal spots; first small, near base; second large, median, transverse, nearly reaching costa and inner margin; third small, towards apex: cilia blackish. Hindwings elongate-ovate; blackish; disc thinly scaled, semitransparent; veins 3 and 5 remote.

Richmond River, New South Wales; four specimens (Coll. Macleay).

152. *Procr. cyanota*, n. sp.

♂. 13 mm. Head, palpi, antennæ, thorax, and legs blackish; collar metallic coppery; antennal pectinations 6. Abdomen brilliant metallic green. Forewings very elongate-triangular, costa hardly arched, apex rounded, hindmargin obliquely rounded; blackish: cilia dark grey, tips pale. Hindwings elongate-ovate; blackish; disc thinly scaled, semi-transparent; veins 3 and 5 approximated at base.

Bathurst (2,300 feet) and Sydney, New South Wales; two specimens, in February and March.

153. *Procr. subdolos*a, Walk.

(*Procris subdolos*a, Walk. Suppl. 62.)

♂ ♀. 14-20 mm. Head, palpi, antennæ, and thorax blackish; face and orbits of eyes brilliant metallic green; collar brilliant metallic coppery; antennal pectinations 5. Abdomen metallic coppery, anal tuft of ♀ ochreous-yellow. Legs blackish, femora and posterior tibiæ metallic blue-green. Forewings very elongate-triangular, costa hardly arched, apex rounded, hindmargin rounded, rather strongly oblique; blackish. Hindwings elongate-ovate; blackish; disc thinly scaled, semi-transparent; veins 3 and 5 remote.

Cape York and Rockhampton, Queensland; Richmond River, Glen Innes (3,000 feet), Sydney, and Wollongong, New South



Wales ; Melbourne, Victoria ; Albany, West Australia ; from September to December, common.

154. *Procr. apicalis*, Walk.

(*Procris apicalis*, Walk. Bomb. 111, Butl. Ill. Het. I, 14, pl. VI, 2 ; *Pollanisus sequens*, Walk. Bomb., 115, Butl. Ill. Het. I., 14, pl. VI, 3 ; *Procris Novæ-Hollandiæ*, Wallgr. Wien. Ent. Mon. 1860, 39).

♂ ♀. 16-18 mm. Head, palpi, antennæ, thorax, and legs brilliant metallic blue-green ; antennal pectinations 5 ; tarsi dark fuscous. Abdomen brilliant metallic blue-green or coppery, anal tuft in ♀ ochreous-yellow. Forewings elongate-triangular, costa almost straight, apex rounded, hindmargin very obliquely rounded ; brilliant metallic blue-green ; cilia grey, basal half black. Hindwings elongate-ovate, blackish ; a thinly scaled semi-transparent patch below middle of disc ; veins 3 and 5 tolerably remote.

Sydney, New South Wales ; in September, November, January, March, and April, very common.

155. *Procr. viridipulverulenta*, Guér.

(*Procris viridipulverulenta*, Guér., Mag. Zool. 1839, pl. XI, 3.)

♂ ♀. 21-24 mm. Head, palpi, antennæ, thorax, and legs brilliant metallic blue-green ; antennal pectinations 5 ; tarsi dark fuscous. Abdomen brilliant metallic blue-green or coppery, anal tuft in ♀ ochreous-yellow. Forewings triangular, costa slightly arched, apex rounded, hindmargin obliquely rounded ; brilliant metallic blue-green : cilia grey, basal half black. Hindwings ovate, blackish ; veins 3 and 5 tolerably remote.

Duaringa, Queensland ; Bathurst (2,500 feet), New South Wales ; Deloraine, Tasmania ; Adelaide, South Australia ; in October and November, common.

156. *Procr. cuprea*, Walk.

(*Pollanisus cupreus*, Walk. Bomb. 115, Butl. Ill. Het. I, 15, pl. VI, 5.)

♂. 21-27 mm. Head, thorax, and abdomen metallic coppery, beneath metallic-green. Palpi and antennæ metallic green, pectinations 5. Legs dark coppery-fuscous. Forewings rather elongate-triangular, costa hardly arched, apex obtuse, hindmargin oblique, slightly rounded; metallic coppery; cilia fuscous, base dark purple-fuscous. Hindwings ovate; blackish, sometimes with a few metallic green scales towards anal angle; veins 3 and 5 remote.

Albany, West Australia; also from South Australia; several specimens (Coll. Macleay and Australian Museum).

#### APPENDIX.

The following specific descriptions remain unidentified; probably in some cases they refer to known species but are erroneously drawn up, in others the species may not be really Australian; I give abstracts of them for reference.

157. *Zygaena acharon*, F., Ent. Syst. 556. Tota cyanea, alis fuscis, obscuris, ano villosa, rufo. Probably a *Procris*.

158. *Lithosia plana*, Boisd., Voy. Astr. V, 209. Alis ant. cinereo-luteis, post. luteis, thorace cinereo, collari flavo.

159. *Lactura dives*, Walk. Bomb. 486. Forewings brown, with seven yellow spots; one near base, two before middle, three beyond middle, one near apex. Hindwings brown, towards base luteous.

160. *Bombyx curvata*, Don. Ins. N. H. Alis testaceis, ant. fasciola curvata punctisque nigris, post. basi roseis nigroque bifasciatis. Probably a *Spilosoma*.

161. *Themiscyra laetifera*, Walk. Suppl. 258. 36 mm. Whitish; head with a brown stripe on crown; antennæ red; thorax with anterior margin and a spot on patagia red, and a brown band connected behind with a broad brown stripe: forewings with some red lines, and some broad irregular contiguous brown streaks, forming two incomplete bands, connected on costa and inner margin: hindwings ochreous.

162. *Nudaria albida*, Walk. Suppl. 273. 2♂-24 mm. White; forewings with four slender bands; first and second widely interrupted, brown, second ochreous in front; third and fourth ochreous, third undulating, fourth composed of marginal streaks; two black points in disc.

163. *Eutane partita*, Walk. Char. Het. 64. I have not seen this description.

164. *Cyrtasia egregiella*, Walk. Suppl. 1837. 20 mm. Head white, aeneous behind, ochreous between antennæ, an aeneous dot on face. Thorax white, collar edged with ochreous, an ochreous stripe containing a white dot in front. Abdomen ochreous, beneath white. Forewings aeneous, with some longitudinal ochreous streaks: two oblique incomplete irregular white bands; a few intermediate white spots on inner margin. Hindwings ochreous. Referred to the *Lithosiadae* by Butler, but very possibly erroneously.

165. *Lithosia pristina*, Walk. Suppl. 1885. 22 mm. Very pale ochreous; forewings narrow, thinly and minutely sprinkled with brown; hindwings brighter.

166. *Hydrusa humeralis*, Butl., Journ. Linn. Soc. 1876, 352. 29 mm. Differs from *H. annulata* by the orange patagia; second spot of hindwings large, almost touching first.

167. *Pallene elegans*, Butl., Trans. Ent. Soc. Lond. 1877, 334. 18 mm. Forewings chocolate-brown; a broad basal patch, transverse constricted band beyond middle, interrupted in centre to form two opposed conical spots, and costal margin at apex creamy-whitish with blackish borders; cilia grey, minutely spotted with ochreous. Hindwings pale ochreous, cilia darker; apex greyish. Head and collar white; thorax dark brown.

168. *Acontia* (*Philenora*, Ros.) *undulosa*, Walk. Noct. 797; Ros. Ann. Mag. N. H. 1885, 445. According to Rosenstock, the generic characters are as in *Mosoda*, but the forewings have vein 10 from a point with 9, and stalk of 7 and 8, 11 from anterior fourth of cell; antennæ of ♂ pectinated; tongue strong. I saw the type of this species, and remarked it as apparently unknown to me, but did not examine it; according to a rough sketch I made, the forewings are white, with blackish markings; three irregular

lines roughly parallel to hindmargin, first subbasal, second before middle, third at  $\frac{3}{4}$ ; a costal streak from first to second; a discal dot before third; an irregular fascia from costa near apex to anal angle; cilia barred with blackish; hindwings yellowish, with an apical blackish spot. I know no species with the above generic characters.

The two following Indian species have been recorded as Australian, but I believe in error; at any rate the locality requires confirmation.

169. *Deiopeia syringa*, Cr. pl. 5, C.D. (Forewings banded with rosy; hindwings rosy.)

170. *Areas lactinea*, Cr. Only recorded by an error for *A. marginata*.

#### INDEX OF GENERA.

Agaphthora, n. g. ....	38.	Hypsa, Hb.....	36.
Amerila, Walk. ....	35.	Lithosia, F. ....	9.
Anestia, n. g. ....	27.	Metacrias, n. g. ....	30.
Areas, Walk. ....	32.	Mosoda, Walk.....	21.
Asura, Walk. ....	29.	Neobrocha, n. g.....	14.
Brunia, Moore. ....	8.	Nola, Leach.....	20.
Calamidia, Butl.....	3.	Nyctemera, Hb.....	34.
Calligenia, Dup. ....	12.	Palaexera, n. g. ....	6.
Chiriphe, Walk. ....	23.	Parelictis, n. g.....	15.
Choromeles, n. g. ....	40.	Phragmatobia, Stph.....	44.
Cluaca, Walk.....	17.	Procris, F. ....	43.
Comarchis, n. g.....	26.	Scaëdora, n. g. ....	22.
Deiopeia, Stph.....	33.	Scoliacma, n. g. ....	4.
Digama, Moore. ....	37.	Sesia, F.....	1.
Euchromia, Hb.....	41.	Sorocostia, Ros. ....	19.
Eutane, Walk. ....	28.	Spilosoma, Stph.....	31.
Exotrocha, n. g. ....	2.	Symmetrodes, n. g. ....	10.
Hectobrocha, n. g. ....	13.	Termessa, Walk.....	16.
Hestiarcha, n. g. ....	24.	Teulisna, Walk. ....	7.
Hestiochora, n. g. ....	42.	Thallarcha, n. g. ....	25.
Heterallactis, n. g. ....	11.	Tigrioides, Butl. ....	5.
Hydrusa, Walk. ....	39.	Zia, Walk. ....	18.

## INDEX OF SPECIES.

Names printed in italics are synonyms.

acharon, F. ....	157.	catarrhoa, n. sp. ....	64.
adoxa, n. sp. ....	29.	catocalina, Walk. ....	32.
<i>aequalis</i> , Walk. ....	112.	cervicalis, Walk. ....	86.
albicollis, Feld. ....	72.	chionastis, n. sp. ....	171.
albida, Walk. ....	162.	chionora, n. sp. ..	19.
<i>alciphron</i> , Cr. ....	111.	chlorometis, n. sp. ....	131.
alterna, Walk. ....	10.	chloropyga, Walk. ....	114.
<i>amanda</i> , Feld. ....	77.	chrysochaes, n. sp. ....	73.
amica, White. ....	98.	chrysochoa, n. sp. ....	75.
<i>analis</i> , Walk. ....	114.	chrysophanes, n. sp. ....	2.
anartoides, Walk. ....	57.	<i>cingulata</i> , Butl. ....	135.
anepsia, n. sp. ....	126.	<i>conferta</i> , Walk. ....	93.
annulata, Boisd. ....	99.	congrua, Walk. ....	36.
annulata, F. ....	135.	conographa, n. sp. ....	38.
<i>annulata</i> , Walk. ....	98.	consolatrix, Ros. ....	58.
antitheta, n. sp. ....	124.	coronias, n. sp. ....	150.
aperta, Walk. ....	134.	costalis, Walk. ....	96.
apicalis, Walk. ....	154.	crescens, Walk. ....	101.
arachneis, n. sp. ....	51.	cribraria, Cl. ....	103.
aspectatella, Walk. ....	82.	cuprea, Walk. ....	156.
<i>astraea</i> , Walk. ....	105.	curvata, Don. ....	160.
<i>astrea</i> , Drury. ....	103.	<i>cyanopyga</i> , Feld. ....	114.
astreas, Drury. ....	104.	cyanota, n. sp. ....	152.
aulacota, n. sp. ....	48.	cyanura, n. sp. ....	123.
<i>australe</i> , Feld. ....	54.	cyclota, n. sp. ....	24.
australis, Boisd. ....	112.	cycota, n. sp. ....	50.
basilissa, n. sp. ....	108.	dama, F. ....	109.
bicolor, Boisd. ....	7.	dasypyga, Feld. ....	16.
bicolor, Walk. ....	139.	dichotoma, n. sp. ....	67.
bicosta, Walk. ....	20.	dictyota, n. sp. ....	68.
brachyleuca, n. sp. ....	105.	discrepans, Walk. ....	37.
<i>canescens</i> , Butl. ....	94.	<i>discreta</i> , Walk. ....	110.
caricae, F. ....	111.	<i>dispar</i> , Leach. ....	18.



dives, Walk. ....	159.	<i>irius</i> , <i>Boisd.</i> .....	143.
dolens, Walk. ....	148.	irus, Cr. ... ..	143.
<i>Doubledayi</i> , Walk. ....	99.	isophragma, n. sp. ....	74.
ecliptis, n. sp. ....	118.	isozona, n. sp. ....	1.
egregiella, Walk. ....	164.	jocularis, Ros. ....	76.
elegans, Butl. ....	167.	jucunda, Walk. ....	56.
epicentra, n. sp. ....	52.	<i>lacteatum</i> , Butl. ....	91.
erichrysa, n. sp. ....	88.	lactinea, Cr. ....	170.
erythrastis, n. sp. ....	92.	laeta, Walk. ....	34.
erythrota, n. sp. ....	145.	laetifera, Walk. ....	161.
eschatias, n. sp. ....	138.	<i>latistriga</i> , Snell. ....	100.
euchrysa, n. sp. ....	22.	leucacma, n. sp. ... ..	122.
<i>fraterna</i> , Butl. ....	20.	leucoma, n. sp. ....	53.
fulvohirta, Walk. ....	93.	leucopleura, n. sp. ....	149.
furcifera, Walk. ....	12.	liboria, Cr. ....	4.
fuscinula, Walk. ....	91.	lochaga, n. sp. ....	78.
<i>ganymede</i> , <i>Dbl.</i> ....	143.	lugens, Walk. ....	54.
<i>gaudens</i> , Walk. ....	85.	lydia, Don. ....	85.
geographica, n. sp. ....	140.	macroplaca, n. sp. ....	130.
<i>gracilis</i> , Butl. ....	81.	<i>maculata</i> , Butl. ... ..	84.
gratiosa, Walk. ....	35.	marginata, Don. ....	95.
<i>guttata</i> , <i>Ramb.</i> ....	103.	marmorea, Butl. ....	115.
habrotis, n. sp. ....	87.	melanora, n. sp. ....	116.
<i>hamula</i> , <i>Feld.</i> ....	37.	melitaula, n. sp. ....	25.
harpophora, n. sp. ....	17.	metallopa, n. sp. ....	55.
heminephes, n. sp. ....	11.	mochlotis, n. sp. ....	132.
hesperitis, n. sp. ....	129.	mochlotoma .....	172.
hirta, Walk. ....	6.	monogrammaria, Walk.	66.
<i>horridella</i> , Walk. ....	41.	<i>Moorei</i> , Butl. ....	95.
humeralis, Butl. ....	166.	nana, Walk. ....	13.
Huttonii, Butl. ..	89.	nesophora, n. sp. ....	113.
hyalota, n. sp. ....	121.	nesothesis, n. sp. ....	133.
intensa, Butl. ....	136.	<i>nexum</i> , Butl. ....	91.
interfixa, Walk. ....	90.	<i>nigriceps</i> , Butl. ....	91, 135.
interrupta, L. ....	172.	nitens, Walk. ....	21.
irenica, n. sp. ....	45.	nivosa, Walk. ....	31.

<i>notata</i> , Butl.....	103.	<i>roseicostis</i> , Butl. ....	95.
<i>notatum</i> , Butl.....	91.	<i>rubratra</i> , Tepper. ... ..	7.
<i>Novæ-Hollandiæ</i> , Wallgr.	154.	<i>rubricosta</i> , Walk. ....	40.
<i>obliqua</i> , Walk. ....	94.	<i>rubripes</i> , Walk. ....	107.
<i>oblita</i> , Feld. ....	79.	<i>rufiventris</i> , Walk. ....	147.
<i>oecophorella</i> , Walk.....	82.	<i>saleuta</i> , n. sp. ... ..	30.
<i>ombrophanes</i> , n. sp. ...	83.	<i>salpinctis</i> , n. sp. ....	5.
<i>omophanes</i> , n. sp. ....	62.	<i>sejuncta</i> , Feld. ....	60.
<i>ophiodes</i> , n. sp. ....	59.	<i>semograptæ</i> , n. sp. ....	44.
<i>orthotoma</i> , n. sp. ....	8.	<i>separata</i> , Walk. ....	102.
<i>pactolias</i> , n. sp. ....	9.	<i>sequens</i> , Walk.....	154.
<i>parallacta</i> , n. sp.....	49.	<i>serica</i> , n. sp. ....	106.
<i>paraula</i> , n. sp.....	125.	<i>servilis</i> , n. sp. ....	61.
<i>paromoea</i> , n. sp. ....	46.	<i>Shepherdi</i> , Newm. ....	33.
<i>paroxynta</i> , n. sp. ....	42.	<i>silvandra</i> , Cr.....	109.
<i>partita</i> , Walk.....	163.	<i>sparsana</i> , Walk. ....	81.
<i>pentacyma</i> , n. sp. ....	27.	<i>sphenodes</i> , n. sp.....	117.
<i>phaedropa</i> , n. sp.....	71.	<i>spilarcha</i> , n. sp. ....	14.
<i>phaeocyma</i> , n. sp. ....	28.	<i>staurocola</i> , n. sp....	80.
<i>phalarota</i> , n. sp. ....	70.	<i>stelotis</i> , n. sp. ....	119.
<i>phepsalotis</i> , n. sp. ....	137.	<i>stenopa</i> , n. sp.....	63.
<i>phyllodes</i> , n. sp.....	15.	<i>strepsimeris</i> , n. sp.....	141.
<i>piepersiana</i> , Snell.....	115.	<i>strictalis</i> , Z.....	47.
<i>plagiata</i> , Walk. ....	110.	<i>structa</i> , Walk. ....	26.
<i>plana</i> , Boisd. ....	158.	<i>struthias</i> , n. sp. ....	39.
<i>polymena</i> , L. ....	142.	<i>subdolosa</i> , Walk. ....	153.
<i>pristina</i> , Walk. ....	165.	<i>subocellatum</i> , Walk. ....	93.
<i>procrena</i> , n. sp. ....	65.	<i>synedra</i> , n. sp.....	128.
<i>pulchella</i> , L.....	97.	<i>syringa</i> , Cr.....	169.
<i>pylotis</i> , F. ....	103.	<i>tactalis</i> , Walk. ....	41.
<i>pyraula</i> , n. sp. ....	23.	<i>terminalis</i> , Walk. ....	84.
<i>pyrocoma</i> , n. sp. ....	127.	<i>tertiana</i> , Meyr. ....	100.
<i>pyrrhoderæ</i> , n. sp. ....	120.	<i>tineoides</i> , Feld. ....	77.
<i>pyrrhopa</i> , n. sp. ....	69.	<i>tipuliformis</i> , Cl. ....	3.
<i>remota</i> , Walk. ....	21.	<i>transitana</i> , Walk. ....	56.
<i>replana</i> , Lw. ....	18.	<i>transversa</i> , Walk. ....	10.

tricolor, Walk. ....	146.	vetustella, Walk. ....	47.
trifurcata, Walk. ....	12.	viduella, Walk. ....	54.
trigonota, n. sp. ....	43.	vigens, Butl. ....	91.
trimacula, Walk. ....	151.	viridipulverulenta, Guér.	155.
undulosa, Walk. ....	168.	xanthocoma, n. sp. ....	144.

## SUPPLEMENT.

Since writing the above, I have seen a species which agrees with Walker's description of *Lactura dives*, and is, I have little doubt, the one intended ; it belongs to the *Tineina*, and may therefore be omitted entirely from this group.

The following two additional species have also come before my notice.

271. *Scaeodora chionastis*, n. sp.

♂. 15 mm. Head white, lower part of face and palpi whitish-ochreous. Antennæ whitish. Thorax white, patagia whitish-ochreous. Abdomen pale grey, sides and apex pale yellowish. Legs whitish-ochreous. Forewings elongate-triangular, costa moderately arched, apex obtuse, hindmargin almost straight, rather oblique ; white ; markings fuscous, very suffused and ill-defined ; a triangularly dilated streak along anterior half of costa, its lower angle connected with inner margin before middle by a slender line, and with a spot on costa at  $\frac{2}{3}$  by a narrow bar obtusely bent in disc ; from this costal spot a slender irregular line to inner margin at  $\frac{3}{4}$ , rectangularly indented near inner margin ; a moderate subterminal fascia from apex to anal angle : cilia white, with dark fuscous apical, median, and anal patches. Hindwings pale grey, purplish-tinged, sprinkled with pale brassy-yellow, especially towards base ; cilia pale yellowish.

Sydney, New South Wales ; one specimen in June.

## 44. PHRAGMATOBIA, Sthph.

Tongue slender. Antennæ in ♂ filiform, evenly ciliated, with scattered somewhat longer cilia. Palpi moderate, porrected, loosely rough-haired. Thorax and femora hairy beneath. Forewings

with vein 2 from  $\frac{2}{3}$ , 7 and 8 out of 9, 10 out of 9 near base. Hindwings with vein 6 and 7 from a point, 8 from middle.

Should be placed between *Areas* and *Deiopeia*.

172. *Phragm. interrupta*, L.

♂. 41 mm. Head, palpi, and thorax pale whitish-ochreous, rosy-tinged; face dark fuscous; thorax with a median longitudinal fusiform blackish stripe throughout. Antennæ whitish. Abdomen light rosy-crimson above, dark grey beneath, with dorsal and lateral series of small round black spots. Legs black, coxæ and femora ochreous-yellow above. Forewings very elongate-triangular, costa moderately arched, apex obtuse, hindmargin obliquely rounded; whitish-ochreous, rosy-tinged; a thick black streak, attenuated anteriorly, beneath lower median vein from near base to  $\frac{4}{5}$ , apex obliquely truncate above; two black dots on transverse vein near extremities; a narrow black longitudinal streak from close beyond lower dot, posteriorly somewhat bent upwards to hindmargin below apex: cilia whitish-ochreous, rosy-tinged. Hindwings and cilia grey, thinly scaled.

Cairns, Queensland; one specimen (Coll. Macleay). Also from India.